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Central Potosi Child Survival Program

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Acronyms

ARI	Acute respiratory infection
BL	Baseline
CBES	Community-based epidemiological surveillance
COMUSA(Spanish)	Comite Municipal de Salud, Municipal Health Committee
CPCSP	Central Potosi Child Survival Project
CRC	Canadian Red Cross
CS	Child Survival
DIP	Detailed Implementation Plan
EPI	Expanded Immunization program
FP	Family Planning
GIS	Geographic Information Systems
HIPIC	Highly Indebted PI Countries
HO	Home Office
HQ	Headquarters
IMCI	Integrated Management of Child's Illnesses
ISA	Institutional Strengths Assessment
KPC	Knowledge, Practices and Coverages
LQAS	Lot Quality Assurance Sampling
M&E	Monitoring and Evaluation
MNC	Maternal and neonatal Care
MOH	Ministry of Health
MTE	Mid Term Evaluation
NGO	Non-governmental Organization
ORS	Oral Rehydration Salts
ORT	Oral Rehydration Therapy
PROSIN	Program funded by USAID/B promoting child health
PVOs	Private Voluntary Organizations, US-based
RPS (Spanish)	Responsable Popular de Salud, a health promoter
SEDES	Departmental Health Office
SNIS	The National health Information System
TAIs (Spanish)	Taller de Analisis de Informacion, Data Analysis Workshop
TBA	Traditional Birth Attendant
TT	Tetanus Toxoid

Executive Summary:

In general, MCDI's Central Potosi Child Survival Program is on track to achieve its program objectives by the end of the project in 2003. Health care providers, primarily auxiliary nurses, have been trained in both clinical and household/community IMCI. Additional training in maternal and neo-natal care is anticipated during the next year. The project team is currently shifting its emphasis from training to development of supervisory systems and training capacity within the cadre of auxiliary nurses. Supervisory and evaluation tools that have recently been developed indicate that performance of newly acquired skills is at an acceptable level.

The project team has worked closely with departmental and district health officers to plan and manage joint supervision and training activities. However, recent elections resulted in major staffing changes at both senior and midlevels that has impacted upon the project's ability to maintain continuity and levels of capacity. The project team has been working with local health officials to enhance their capacity to establish a community-based surveillance system and analyze that data monthly at data analysis workshops, become proficient in costing methodology for maternal and child health services, particularly those included in the Basic Health Insurance. Given the institutional instability, the project team is focusing greater resources on strengthening the capacity of municipal health officials that are less subject to political changes.

The project team recently developed and implemented a simple monitoring system to track knowledge and behavior change using small, stratified samples, which indicated that maternal knowledge and practice has improved from baseline rates assessed at project start-up.

Improvements in communications and transportation systems, relocation of the project office to a site closer to the project area, and the addition of a senior community health specialist have already improved project administration and management.

Individuals responsible for writing and editing this Annual Report include: Dr. Jose Luis Alfaro, Child Survival Specialist; Dr. Luis Benavente, MCDI Senior Health Project Officer; Vicki MacDonald, MCDI Senior Health Program Officers; Dennis Cherian, Child Survival Program Officer and Joseph Carter, Director, International Division.

A. PROGRAM OBJECTIVES AND PROGRESS

Table 1 below discusses Program Objectives against their progress and provides corresponding comments.

Program Objectives (End of Project)	On target?	Comments
80% of facility-based health care providers will correctly apply IMCI standard case management protocols	Yes	39 providers trained in clinical-IMCI 49 providers trained in HH/C-IMCI Supervisory visits to providers found improved performance (see table supervision IMCI, annex 1) judged against a standard checklist against which the performance of providers was assessed. IEC materials, IMCI/ MNC guides printed
80% of facility-based health workers will correctly apply maternal and newborn care protocols and EPI	Yes	22 trained in MNC (5 professional, 17 auxiliary nurses) Correct application of protocols judged on skills evaluation using anatomical models at end of training. EPI study completed and presented to Health District personnel on improved systems and procedures for EPI. Logistical support to National Immunization Days provided
100% of members of district and municipal health teams will be able to effectively implement administrative subsystems related to IMCI, MNC, and EPI	Yes	Team working collaboratively with district team to conduct annual joint planning exercise, quarterly joint evaluation of activities, monthly data analysis workshops, supervise 14 facilities, and analyze Basic Health Insurance expenditures by municipality for strengthening planning. Currently continuing joint activities with newly appointed officers.
At the end of the project, 100% of the relevant members of district and municipal health teams will be proficient in the costing methodology for maternal and child health services covered under the SBS	Yes	Methodology presented, data collected and analyzed. Progress report included in Attachment E.
100% of promoters (community health volunteers, RPS in Spanish) will be able to describe danger signs of pneumonia	See footnote, *	A higher % of mothers recognize fast breathing, Baseline: 7%; 2002: 25.5%. But chest in-drawing is not named.
100% of promoters will be able to describe key signs of dehydration	See footnote, *	The proportion of mothers able to name any danger sign of diarrhea has not changed, less than 10% can name 3 signs
100% of promoters will recognize danger signs during pregnancy, labor, delivery, and postpartum, and need to refer to health facilities in a timely manner	See footnote, *	More mothers recognize bleeding and swelling, the proportion of mothers naming seizures remains close to zero.
100% of promoters will be able to identify key	See	Monitoring of maternal knowledge and

messages for pneumonia, diarrhea, nutrition, immunizations, and maternal and newborn health	footnote, *	practices made at intervened hamlets, exposed to health education.
Evidence of maternal behavior change: a. 50 % of children 12-23m had complete immunizations according to the card b. 60 % of mothers had 2+ TT before giving birth c. 50 % of children 6-24 mo receive vitamin A supplements, according to maternal recall d. 70 % of children with diarrhea that received more breast feeding e. 70% of children with diarrhea that maintained feeding (more/same as usual) f. 70 % of children with diarrhea that received more liquids g. 80 % of children with diarrhea that received ORT h. % of children 0-6 mo exclusively breastfed i. 70% of children with cough and fast breathing were taken to a health facility j. Increase % of children with cough and fast breathing that were taken to a health facility in the same day (no quantitative goal set) k. 50 % of mothers had 4+ prenatal visits l. 50 % of mothers had 90+ iron pills m. 50 % of mothers gave birth attended by a health worker n. 70% of mothers received vitamin A supplement after giving birth o. 80% of women received orientation in postnatal FP options p. Increase % of children receiving BCG within the first month of life	 Yes No Yes No No Yes Yes No data Yes Yes Yes Yes No Yes Yes Yes	See also Annex 3. a. baseline (BL) procedure = KPC2000: 33.3%; 2002: 62.5 b. BL(procedure=KPC2000):8.8%; 2002= 17.5% c. BL: 43.0%122/284; 2002: 83% d. BL, more: 17.3%; 2002: 10.7% e. BL, same/more: 50%; 2002: 46.8% f. BL, more: 28.2 ; 2002: 45.6% g. BL: 49.1%, including ORS, rice water, liquids and herbal teas; 2002: 87.1% h. BL: 70.1% (54/77) 2002= not recorded (nutrition intervention not included) i. BL: 33.3%, ; 2002: 57.4% j. BL: 3 mothers (9.1%) went the same day; 2002: 48.9% k. BL: 45.1% ; 2002:48% l. BL:9.5%; 2002: 35.8% m. BL: 22.9%; 2002: 31.5% n. BL: 12.7% ; 2002: 48.5% o. BL: 13% (denominator = all women); 2002: 43.5% p. BL: 32.0%; 2002: 80.3% (denominator = all children)
Nur University personnel receive training in M&E, GIS, Cost Analysis	Yes	Cost Analysis training finished, M&E with LQAS being scheduled. Training in GIS not yet scheduled.

* Educational activities conducted directly with mothers' groups.

B. FACTORS THAT HAVE IMPEDED PROGRESS TOWARDS ACHIEVEMENT OF OBJECTIVES AND CORRESPONDING ACTIONS TAKEN BY THE PROGRAM TO OVERCOME THESE CONSTRAINTS:

1. Constraint: There is a lack of institutional stability among partners, particularly within the Health System Departmental Field Office (SEDES)[1] and Health District Management Team. In a recent (October 2002) election, the new administration replaced virtually all key health officers. The project team has undertaken considerable effort to coordinate

[1] This is the decentralized authority that manages the health system.

and collaborate with new authorities. However, the changeover in personnel has resulted in continuing changes in priorities. For example, in the past, SEDES has been ambiguous regarding its support for community IMCI. Many of the new health officers prefer to focus on tertiary services, and discourage any expenditure on community outreach activities. Initiatives, such as EXTENSA (a program to send itinerant medical teams to the field and to train local health workers), which is directed to increase access to basic MCH services, are still subject to heavy political interference.

Action taken: With funding from the World Bank's HIPIC, new human resources to staff health facilities have been hired recently and could help increase access to basic health care. MCDI is coordinating with SEDES, encouraging them to direct the districts and municipal health services to schedule visits to rural communities by auxiliary nurses. MCDI has asked SEDES to hold regular meetings with an interagency commission to help coordinate related interventions, such as IMCI and MNC, in the same provinces.

2. Constraint: Communications are poor between MOH Department and field levels. Communications are also poor between MCDI home office and field team. Phone service in the project area is unreliable.

Action taken: MCDI is increasing the use of solar-powered radios to improve communication with auxiliary nurses in rural posts. This helps to address the communication problems within the MOH. The use of magnet or solar-powered radios (batteries are expensive for this population) is being considered as a means to communicate with community-based providers.
MCDI site office is being provided with alternate power (generator) to maintain communication with home office. A liaison office has been opened in Potosi. (See also G)

3. Constraint: The population is scattered over the countryside. Since most practice subsistence agriculture, time for health education is constrained by the agricultural calendar. From September to December during the rainy, planting season, the population is reluctant to commit time for other activities. Most women raise goats and must take them to distant pasture fields, leaving them little time to participate in outreach activities.

Action taken: Project team is adapting its activities to the agricultural calendar.

4. Constraint: Logistics: There are a few roads; many communities cannot be visited by car during the rainy season (river beds are used as roads, scanty public transportation).

Action taken: MCDI has repaired a truck belonging to the MOH which is being used for supervision.

5. Constraint: The quality of the information recorded in child immunization and maternal cards needs improvement. See discussion in annex 3.

Action taken: Field team has identified those health workers not complying with protocols and are retraining them.

C. **PROGRAM AREAS THAT REQUIRES FURTHER TECHNICAL ASSISTANCE**:

Maternal health: In order to upgrade the skills of facility-based maternal care workers, MCDI is in the process of requesting the services of MNC expert, Franz Conchari, formerly with JHPIEGO. He will provide skills-based training in maternal and neo-natal health that has been lacking in the project.

D. **DESCRIPTION OF SUBSTANTIAL CHANGES FROM THE PROGRAM DESCRIPTION AND DIP THAT WILL REQUIRE A MODIFICATION TO THE COOPERATIVE AGREEMENT**:

There have been no substantial changes in either the program description or the DIP. No modification of the cooperative agreement is required. Both the home and country offices use the program's monitoring plan to keep track of progress towards project goals.

E. **ACTIVITIES BEING UNDERTAKEN TO IMPLEMENT THE RECOMMENDATIONS FROM THE MID-TERM EVALUATION**:

- **MTE Recommendation:** ***Scale up the scope of project implementation in Cotagaita as soon as possible…. The CS team can then shift from direct community training to supervision of training.***

  Response: The Project has trained 40 auxiliary nurses who manage health post in community-IMCI. In turn they have gone into villages that are served by the health post to provide community training and outreach. As a result, in the last 8 months, the number of target rural communities (with organized mothers' groups meeting regularly) increased from 31 to 88, with a total of 92 mothers' groups. New groups are being formed in Cotagaita and Vitichi neighborhoods. 120 communities with about 140 women's groups will be reached in the next year. District auxiliary nurses still require intense support from MCDI staff for logistics of outreach activities. MCDI is gradually shifting to training and supervision of auxiliary nurses.

- **MTE Recommendation*: Complete clinical IMCI training for the remaining eight health workers in Cotagaita district immediately…Begin joint systematic supervision of IMCI, the NHI program and supplies and medications in all health facilities in Cotagaita district. Integrated supervision instruments will have to be finalized first (currently, the IMCI supervision instrument is being used).***

  Response: The Project team trained 36 out of 40 auxiliary nurses in clinical IMCI. PROSIN trained the remaining four. These nurses have total responsibility for management of the health posts. In order to support them, supervisory instruments have been developed and tested which cover IMCI, NHI, MNC, and essential drugs and supply logistics. The routine, integrated use of these supervisory instruments by municipal nurses will be assured under the revised agreement with the SEDES. In the face of on-going changes in staffing during this a subsequent administrations, MCDI has scheduled

additional training and as been asked by the municipalities to collect and distribute existing distance learning modules for clinical IMCI supervision that can be learned on a self-study basis.

- **MTE Recommendation:** ***Complete training in management of obstetrical emergencies and post-natal care for all health personnel in Cotagaita district, and begin supervision of implementation.***
  Response: With the support from JHPIEGO staff and anatomical models, MCDI facilitated two workshops on obstetrical emergencies during which 5 professionals (doctors) and 17 auxiliary nurses were trained. On-site supervision has been scheduled. SEDES Potosi asked MCDI to extend this training to other provinces.

- **MTE Recommendation:** ***Finalize the BCC/IEC plan and materials, based on existing IEC materials.***
  Response: IEC plan has been completed and is being implemented. MCDI is basically using existing IEC materials, which have been collaboratively judged by MOH and the Project to be appropriate for the needs of the project.

- **MTE Recommendation:** ***Develop and implement a simple monitoring system for knowledge and behavior change. LQAS would be an appropriate sampling/analysis method, though external TA will be required.***
  Response: A household survey to assess behavior change was conducted in October 2002 (see annex 3). The trainers were Dr. Alfaro, a former biostatistics instructor, with extensive experience in stratified surveys and Dr. Benavente (HO) who has previously trained on KPC/ LQAS surveys. PROSIN has recently conducted a LQAS survey which included IMCI and maternal health in the Department of Potosi, stratified by health districts, but did not allow us to draw conclusions at the municipal level. In two weeks time, it was possible to draw comparisons and conclusions from the data to assist in project monitoring.

- **MTE Recommendation:** ***Support the training and implementation of SEDES' community-based surveillance system (already scheduled for 2002).***
  Response: MCDI is jointly planning and discussing options for implementation of a community-based surveillance system with the health district to avoid duplication. Other community-based projects in Bolivia, such as Save the Children, Oruro; and Canadian Red Cross (CRC), will be visited to exchange experience on implementation of similar systems. MCDI's field team feels that the Family Record developed by the CRC is too cumbersome and time-consuming. MCDI field team is currently involved in discussions with SEDES Potosi on how to collect and use limited data (births, deaths and selected conditions such as pregnancies) during the implementation stage.

- **MTE Recommendation:** ***Review the strategy for the implementation of activities in Puna to determine to what extent project resources can support expansion of the project. Geographic expansion may have to be limited.***
  Response: A limited intervention in Puna has been scheduled to start in November 2002. One staff member has already been deployed in this district to start training and

supervision with the health district. MCDI will directly supervise only 20 communities and the corresponding health services in this district. Training and limited supervision of auxiliary nurses in Community IMCI and MNC has been prioritized and scheduled.

- **MTE Recommendation:** ***MCDI should renegotiate its agreements with SEDES, the Health Districts, and Municipalities as soon as possible.***
  Response: In May 2002 a new agreement was signed with SEDES. However, after the Presidential election most health officers were reassigned and the new senior health officials are requesting additional revisions of the previously signed agreements with both SEDES and the health districts. Dr. Castro, the new SEDES Director, enjoys very good working relationships with our key staff. Dr Leano, the new District Health Director is coordinating closely with the field team.

- **MTE Recommendation:** ***Regular and consistent access to information from all health information systems and the NHI program (and regular sharing of MCDI information with MOH and Municipal authorities).***
  Response: New district authorities are willing to share information. SEDES Potosi has now granted its authorization. The Project now has unlimited access to the SNIS as soon as the data is entered into the system. The Project's information system is now integrated with SEDES.

- **MTE Recommendation:** ***Obtain formal commitment to regular standardized joint supervision of health facilities using mutually agreed-upon instruments.***
  Response: The revised agreement with SEDES/ health district includes joint supervision. A verbal agreement to proceed with joint supervision has been obtained.

- **MTE Recommendation:** ***Obtain commitment from SEDES to agree to the wider role of the nurse auxiliaries in training and supervising community health volunteers.***
  Response: The chief IMCI health officer in SEDES Potosi has instructed all health district staff to assign this responsibility to auxiliary nurses; some had alleged lack of information.

- **MTE Recommendation:** ***Actively pursue contacts with the PROSIN community health division (DIDESCO), as well as CIELO at the SEDES level for activities related to MNC, HH/C-IMCI and IMCI.***
  Response: All activities related to IMCI/NC are being closely coordinated with SEDES and PROSIN.

- **MTE Recommendation:** ***Define the exact role of community health workers:***
  Response: Until September 2002, MCDI worked primarily with auxiliary nurses and mother's groups. However, MCDI had defined the following roles for community volunteers (Responsible Popular de Salud in Spanish): leading community organization and mobilization; conducting health promotion and education; assisting with the logistics of campaigns; providing classification and treatment of common illnesses such as diarrhea and ARIs; assisting in the registration of births and deaths, and referring cases to the health facility. Officials within SEDES and at the district level are still in

disagreement over these roles. Discussions are continuing and MCDI will support the training of those health workers based on the roles agreed to by MOH. The Ministry of Health is considering employing a small number of those "volunteers", who will receive a small monetary incentive.

- **MTE Recommendation:** ***Through a phased approach delegate training for women's groups, community groups and RPSs and supervision of RPSs to auxiliary nurses once they have received HH/C-IMCI facilitator training. MCDI will initially provide close support for outreach activities of the nurses, consolidating the results in organizing and training the community volunteers and implementing the HH/C-IMCI interventions and progressively moving into new communities.***
  Response: The involvement of auxiliary nurses in this task is growing. MCDI has taken the initiative and our staff has provided the example for outreach and supervisory activities in rural communities. At the same time, our participatory training methods with this auxiliary nurses have improved their skills as facilitators and trainers. Community outreach activities are planned jointly with MOH; MCDI and health workers pool their resources and share the load. There are very good working relationships with the auxiliary nurses. The participation of itinerant medical teams visiting rural communities– eventually supported by EXTENSA- will be coordinated to avoid duplication.

- **MTE Recommendation:** ***Develop a realistic joint capacity-building plan with Municipal authorities as soon as possible after renewal of agreements***
- ***Present the results of the medication and supply studies as soon as possible and use it as the basis for planning***
  Response: results of the studies were presented to new district authorities and an abridged report was produced. A formal presentation has been scheduled with SEDES authorities.
- ***Emphasize improving the functioning of the SNIS, the HIS program, and essential stock, medication management***
  Response: Data from the SNIS is analyzed jointly in Data Analysis Workshops. MCDI will continue to monitor the HIS program and drug logistics management system. MCDI suggests that an independent expert analysis of the proposed expanded health system be sought to rationalize ambitious plans with budgetary realities. MCDI's MEDCOST program is a state-of-the-art tool for this type of analysis.

- **MTE Recommendation:** ***Improve and expand <u>logistical and equipment support</u> to allow expansion and scaling up of the project***

  - ***Increase the number of vehicles. The project will likely need at least one additional vehicle and one motorcycle if it is to be able to cover the vast area.***
    Response: Both the Project Manager and the Country Representative use their own vehicles to conduct site visits and supervisions.
  - ***Establish a liaison office in Potosí***
    Response: A small but functional office opened in September 2002 to finish the cost study. Due to a continuing problem with power outages in Cotagaita, this office will be maintained.
  - ***Purchase basic safe birthing kits for home-based care use once the MNC training for obstetrical emergency care has been finalized. Continue to pursue funding from the Japanese Embassy for hospital equipment for the ObGyn department of Cotagaita Hospital***
    Response: MCDI is planning on purchasing supplies for simple, minimal birthing kits. Japanese Embassy short listed MCDI for this project (technical proposal). Funding is pending.
  - ***Supplement immunization and maternal health cards as needed***
    Response: 3000 child cards were obtained from PROSIN.

- **MTE Recommendation:** ***Initiate contacts and activities with Puna and Caiza "D"***
  - Establish agreements with the relevant districts, municipalities, and local PVO partners
    Response: Contacts are being made; staff from Puna have attended previous training conducted by MCDI in Potosi.
  - Schedule training in clinical IMCI for health workers as soon as possible. This could begin almost immediately after agreements are signed. (This training is in the process of implementation.)
    Response: Training needs assessment has been completed. Training sessions have been scheduled before the end of 2002.

<u>IMMUNIZATIONS</u>

MTE Recommendation: ***The team should make every effort to verify true immunization coverage as soon as possible.***
Response: A household survey was conducted. The coverage rate was slightly lower than those rates reported by the SNIS.

MTE Recommendation: ***MCDI should go ahead with its plan to supplement maternal and child cards to guarantee their regular supply.***
Response: MCDI obtained 3000 child immunization cards in La Paz.

MTE Recommendation: ***The MCDI team should not forget to develop at least one message (and supporting visual aids) each regarding vitamin A and tetanus toxoid immunization to supplement the materials lacking in the existing community IMCI materials.***
Response: Recommendation implemented for tetanus immunization. Messages on vitamin A supplementation have been deferred. Evidence gathered in household surveys indicates that it may also be necessary to develop messages targeted at health care providers.

DIARRHEA

MTE Recommendation: ***The team should keep in mind that, in the event of intermittent short supply of ORS, priority should go to health facilities equipped to rehydrate dehydrated children (plan B) rather than distribution to mothers to use to prevent dehydration (plan A).***
Response: This recommendation has been put in practice.

MTE Recommendation: ***As the first step to prevent complications and to overcome ORS shortages the team should maintain the education of RPSs in the use of home-based rehydration liquids***.
Response: The use of home-based fluids is consistent with MOH protocols. The project promotes soups and broths and herbal teas. At the same time, it educates mothers on the advantages of continued feeding during diarrhea: less stool output, faster recovery, improved weight gain.

PNEUMONIA

MTE Recommendation: ***MCDI should work with the auxiliary nurses to develop community outreach schedules for two reasons: 1) to maximize the effectiveness of their outreach activities and 2) to minimize the negative impact of their absence from the health posts.***
Response: Community outreach has increased. However, it should not be expected that the nurses would find a large number of pneumonia cases during those visits.

MNC

MTE Recommendation: ***MCDI should carefully review and evaluate the feasibility of adapting the Municipality/Family educational material for training RPSs as well as for BCC/IEC activities***.
Response: MCDI agrees that the educational material are excellent and plans to use several of the charts in community education. However, we have noticed and advised auxiliary nurses against delivering all those messages in one single session (which we discovered to be the case during several supervisory visits).

MTE Recommendation: ***De-emphasizing TBAs seems a reasonable decision***
Response: TBAs assist at very small number of all births. As any other community member, they are being included in health education activities at the community level.

MTE Recommendation: ***MCDI should move quickly to coordinate with MNH and the MOH to arrange plans and schedules for technical training of a TOT team in obstetrical and neonatal emergencies.***

Response: MCDI facilitated two workshops on MNC. Training was practical, aimed to improve performances and thus it had a high ratio of facilitators to attendees. The use of anatomical models allowed trainers to verify that the training had improved procedures, not only knowledge. The training has also provided an opportunity for health authorities to reassess the advantages of training auxiliary nurses. Since there was no validated manual for auxiliary workers (WHO has one under development), the Spanish version of the IMPAC manual was used. This manual proved to be clear and easily understandable by auxiliary nurses. The manual was complemented with overhead transparencies and flipcharts prepared on-site because of the lack of electricity.

MTE Recommendation: ***In all but the most inaccessible areas, MCDI should target messages and training toward encouragement of deliveries by MOH health personnel, at a facility if possible, or in the home.***
Response: Deliveries assisted by a trained provider are promoted. The definition of a "trained provider" includes auxiliary nurses trained in clean births and obstetric emergencies.

IMCI

MTE Recommendation: ***In order to not jeopardize the valuable investment in IMCI training to date, MCDI should begin applying the systematic IMCI supervision tool to all trained personnel in all facilities.***
Response: Supervision will be conducted jointly immediately after signing the revised agreement with SEDES, which we hope will be signed in November 2002.

MTE Recommendation: ***MCDI should encourage the final training of the remaining eight health workers in Cotagaita district in clinical IMCI as soon as possible (these 8 health workers are in the process of being trained).***
Response: Those eight workers were trained. But a large number have been replaced recently, thus the training must continue.

MTE Recommendation: ***As the project does not have the luxury of waiting any longer for Núr University to finalize and release the materials, MCDI should work with PROCOSI/CORE HH/C-IMCI initiative to complete the development of the HH/C-IMCI course for facilitators and health workers and carry it out as soon as possible.***
Response: Activity completed with support from a local consultant, Marcelo Castrillo. In Bolivia, as in many other countries, Community IMCI is a model under development and the new authorities are likely to introduce new changes.

MTE Recommendation: ***It would seem reasonable to integrate maternal/newborn topics into the course for community IMCI (both the courses for heath workers and community members) rather than trying to organize a separate training course.***
Response: HH/C-IMCI already integrates brief messages on MNC among the 16 key practices. The project team has retained reprioritized messages related to maternal and neonatal health.

MTE Recommendation: ***Both the team and mothers agree that the training of mothers' groups and RPSs will be more effective if some sort of material can be left behind in the community.***

Response: Maternal reminder materials, mostly in black and white, are being left in each community center. MCDI is in the process of improving the quality of maternal reminder materials using the results of focus groups conducted by PROCOSI and other project partners. Materials must include color. Mothers prefer photos over drawings and other artistic representations of people. Materials must be laminated to withstand weather, wear and tear.

MTE Recommendation: ***A brief baseline assessment of the degree of application of appropriate IMCI and MNC protocols by health workers in health facilities before training health workers in the expanded zone would provide better documentation of the project's direct impact on the quality of services.***
Response: Standard assessment tools have been developed and are being used to assess the skills and competency of the auxiliary nurses. Observation and supervisory assessments conducted in 14 facilities (see annex 1) shows that the performance of auxiliary nurses still needs improvement, although signs of progress are also clear.

MTE Recommendation: ***MCDI needs to finalize the HH/C-IMCI materials initially developed by Nur/PROSIN.***
Response: Nur/PROSIN materials are still being improved and validated. Given that development and production of materials is costly and time consuming, all institutions funded by USAID have been encouraged to avoid duplicating efforts. NGO/PVO networks such as PROCOSI and PROSALUD constitute an opportunity for increased collaboration. MCDI has adapted the best of what is available from these organizations as well as independently producing materials. MCDI is currently considering focusing on production of a reduced set of tools and materials. For example, MCDI could focus on obstetric emergencies while others produce materials on diarrhea or pneumonia. MCDI's Home Office is coordinating efforts through the CORE Group and its IMCI working group.

COMMUNITY MOBILIZATION

Community organization/women's groups:
MTE Recommendation: ***The MCDI team should develop some simple criteria for measuring the level of community organization that they wish to achieve and include these goals and methodologies in the training course of HH/C-IMCI for nurse auxiliaries.***
Response: The current criteria is the existence of a mother's group within the community. The leader may or may not be a "madre vigilante". The group meets at least once a month. The meeting may occur during an outreach activity: immunization, growth monitoring, group education and individual counseling, treatment of ill mother and children, referrals.

MTE Recommendation: ***As the establishment of health committees appears to be a strategy that the team is interested in pursuing, MCDI should also work with those communities with the most active and organized committees (such as Tocla).***
Response: Health committees are being supported through training related primarily to management. The new administration seems willing to increase decentralization and increase decision-making power at the municipal (lower) level.

Community Health Workers (RPS)

MTE Recommendation: ***MCDI should make every effort to coordinate municipal efforts to support the training of 50 "health promoters" with the CS project.***
Response: The Child Survival Specialist, recently incorporated into the team, has scheduled training activities focused on health promoters/ Madres vigilantes. The new administration is redefining the role of community volunteers in the promotion of Basic Health Insurance services, and considering having a cadre of paid promoters. MCDI will work with the health promotion candidates that are selected by the municipality, although it is likely that the selection process might be influenced by political affiliation.

Community-based epidemiologic surveillance (CBES)

MTE Recommendation: ***The MCDI team should investigate the community-based epidemiologic surveillance system to be implemented by SEDES this year and support this effort.***
Response: SEDES Potosi is willing to expand a CBES developed by the Canadian Red Cross. However, SECI, a CBES developed by Save the Children in Oruro, might be more culturally appropriate and sustainable. Rather than developing a new system from scratch, MCDI will systematize its own experience and negotiate with SEDES/ District/Municipality developing and using a CBES that best fits local needs. MCDI plans to analyze the constraints and concerns about system sustainability in Chaqui –where the Canadian Red Cross started the above-mentioned initiative-- as part of the extension application. At the beginning of December MCDI will hold a workshop on how to use this information for local health-related decision making.

COMMUNICATION FOR BEHAVIOR CHANGE

MTE Recommendation: ***The team should continue to give priority to targeting messages to health workers, RPSs, caretakers, and communities as a whole. Other targets (traditional healers, rural cooperatives, TBAs) may receive attention according to individual need and opportunity, but probably do not need to be systematically targeted.***
Response: MCDI is currently giving priority to targeting messages to mothers and health workers. In addition, adult males are being invited to health activities, since fathers decide when to seek help. At times, the entire community is targeted due to the fact that the communities in Quechua towns frequently act as a whole entity, for instance when approving the schedule of educational activities.

MTE Recommendation: ***MCDI should consider reproducing laminated cards and flipcharts for each community in order to enhance the effectiveness of the RPSs' interpersonal communication activities.***
Response: Flipcharts were produced. Each mother's group has received a set.

MTE Recommendation: ***In addition, it would be advisable for MCDI to begin developing a supervision instrument for interpersonal communication that can be applied by MCDI staff and nurse auxiliaries.***
Response: A tool to assess the quality of interpersonal interaction and counseling is currently in use.

MTE Recommendation: ***The team should be encouraged to implement the group education supervision instrument as quickly and widely as possible. The current four-page form is somewhat lengthy and may eventually require some simplification.***
Response: The supervision tool was simplified; the abridged version has only two pages.

Monitoring

MTE Recommendation: ***The team should not wait, but should move ahead to develop and implement a streamlined tool to monitor caretakers' knowledge and practices.***
Response: Monitoring of maternal practices under way, using household surveys in intervention communities.

MTE Recommendation: ***After the gaps analyses, key messages were prioritized; however, there still appears to be an excessive amount of messages to be memorized by caregivers. Therefore, key messages should be reassessed and reprioritized.***
Response: Breastfeeding, nutrition, and early stimulation messages were postponed. The team is now focusing on the priority project interventions: diarrhea, pneumonia, immunizations and maternal health.

CAPACITY-BUILDING LOCAL PARTNERS

Strengthening the Local Partner
MTE Recommendation: ***In order to increase awareness of the project, the evaluation team agreed that increasing the volume of written communication, reporting, and general information to all partners, including municipal governments, SEDES, districts, areas, and key staff would be beneficial.***
Response: A leaflet describing the project is being produced to share with local authorities. The information on federal resources as well matching funds provided by MCDI and the local partners will be shared with SEDES and municipalities. Fund expenditures (indirect costs, direct costs, lines in the field budget) area also being shared to ensure transparency in project management. Municipalities have already submitted data on their contributions to project activities.

MTE Recommendation: ***In order to make it possible to implement joint supervision to improve the quality of supervision and help guarantee sustainability, MCDI may want to explore options, such as providing non-financial incentives for MOH staff in order to guarantee their participation.***
Response: Transportation, other non-monetary incentives are being provided to those auxiliary nurses conducting intense outreach activities.

MTE Recommendation: ***The evaluation team wholeheartedly supports the shift in emphasis in capacity building away from SEDES and the districts and toward strengthening municipalities.***
Response: Although MCDI has placed increased emphasis on capacity building at the municipal level, coordination with SEDES is still required for many activities such as training.

MTE Recommendation: ***MCDI should follow-up on the discussions to encourage the municipalities to hire a designated nurse supervisor and, if successful, work to strengthen that person's supervisory skills through joint supervision***.
Response: Although numerous discussions have been held with the mayors of the target municipalities, no decision has been reached on hiring a nurse supervisor. Vitichi has recently hired one of MCDI's nurse supervisors to fill this position. MCDI has continued to express its willingness to help in the training of those municipal supervisors and conduct supervisions with them.

MTE Recommendation: ***MCDI should continue its efforts to support the newly formed Municipal Health Committees (COMUSA) through active participation in their meetings, planning, and evaluation.***
Response: MCDI is participating in the meetings and will assist the committees to plan and manage their resources and strengthen their capacity to outreach to other community-based organizations to obtain resources.

MTE Recommendation: ***The project should eliminate the capacity-building objectives with respect to Núr University, and concentrate on strengthening the Municipalities. If these objectives remain, however, probably the best way to measure whether exposure to a new methodology or procedure (such as LQAS, GIS, or cost-analysis) is whether the university has incorporated it into its curriculum and taught it to others***.
Response: Nur University is a reliable partner, with expertise in IEC. It benefits from training opportunities brought by MCDI, including cost analysis. A LQAS workshop with Nur and PROCOSI is being planned for early 2003. Nur University provides part-time training of 3 members of our staff. Nur University could also provide short-term training to Municipal supervisors, members from local NGOs and selected health officers.

Strengthening Health Facilities
MTE Recommendation: ***MCDI should present the results of the drug management study as soon as possible in order to have time to implement its plan to further improve the system.***
Response: An abridged report was prepared. The findings of the study were presented to district health officers and supervisory tools now include indicators to assess cold chain and essential immunization supplies and drug management.

Strengthening Health Worker Performance
MTE Recommendation: ***MCDI should renegotiate its agreements at all levels to ensure the implementation of joint systematic supervision of health worker performance. This includes agreeing on standardized instruments, schedules, and how and who will use the information.***
Response: Supervisory tools have been developed. Their use by MOH supervisors is being discussed with SEDES Potosi and the districts.

SUSTAINABILITY

MTE Recommendation: ***MCDI should be encouraged to submit an extension application, which will fully incorporate all of the geographical areas of the Linares province (Puna and Caiza D Municipalities)***.

Response: A proposal being prepared to extend the project for additional 5 years.

MTE Recommendation: ***MCDI/Bolivia must not forget to look after itself as well. It should begin as soon as possible to identify sources of funding for other related projects and sources of matching funds for the Child Survival project.***
Response: Other funding sources are being explored.

SUPERVISION OF PROGRAM STAFF

MTE Recommendation: ***The MCDI CS team should start a gradual shift upward, from direct trainers at the community level to training of trainers (nurse auxiliaries), supervision of health facilities and community activities, development of materials, monitoring, and evaluation.***
RESPONSE: This process is under way. Given recent changes in management at senior levels within SEDES and the Health District and their changing priorities, MCDI staff still must lead community outreach and, at the same time, train and supervise district health workers.

LOGISTICS

MTE Recommendation: ***MCDI should make every effort to provide the field with one more vehicle. The minimum requirement would appear to include at least one more reliable vehicle plus one motorcycle.***
Response: MCDI repaired one truck that had been donated by USAID several years ago to Cotagaita health district. This truck is used for outreach campaigns and supervisions.

INFORMATION MANAGEMENT

MTE Recommendation: ***MCDI should reconsider the current HIS methodology for capturing information in order to spend more time supervising the existing MOH and NHI information systems to improve their reliability, as well as spend more time analyzing the data regularly.***
Response: There is an increased use of routine, SNIS data. MCDI staff participates in monthly workshops to analyze SNIS data together with the district health authorities.

Supervision

MTE Recommendation: ***MCDI should take the lead to coordinate agreements on integrated standardized supervision instruments for joint supervision at the various levels and work toward their systematic use, compilation, and analysis in the TAIs.***
Response: Standardized supervision checklists have been developed. Monthly meetings are now being held to discuss and analyze data from the supervisions.

BCC/IEC

MTE Recommendation: ***A very simple system for monitoring changes in caretaker knowledge and behaviors should be designed and deployed as early as possible.***
Response: Monitoring of maternal practices is in process, in close coordination with district health authorities.

F. **DIP PHASE-OUT PLAN, STEPS TAKEN, TARGETS REACHED, AND CONSTRAINTS TO DATE. CURRENT EXPECTATIONS ON PROGRESS TOWARDS PHASE OUT, AND HOW THEY HAVE EVOLVED/CHANGED OVER THE LIFE OF THE PROGRAM**.

In coordination with the USAID Mission and partners, MCDI is preparing a proposal for an extension. MCDI is the only stable US PVO operating in the high priority area of Potosi. Institutional instability has proven to be a major constraint to phase out. MCDI feels that the process of institutionalization of many project initiatives is still formative. A large proportion of the outreach activities including health education to mothers' groups is being transferred to auxiliary nurses. Registered nurses are gradually conducting the supervisions. Health authorities acknowledge that MCDI has helped to close the gap between rural communities and health providers and that most of those improvements must be institutionalized. Particularly in Cotagaita the district needs support to increase use of financial resources allocated by the Health Insurance (only 45% is spent, the remaining is being carried forward for the next year).

G. **FACTORS THAT HAVE POSITIVELY OR NEGATIVELY IMPACTED THE OVERALL MANAGEMENT OF THE PROGRAM DURING THE LIFE OF THE PROGRAM**

Financial and administrative management: There are no commercial banks in the project "catchment" area. Although transfers can be made to a local credit union, this has not proven to be an effective means of assuring needed funds for the project team. The project set up a liaison office in Potosi and is increasing the management of administrative tasks from there. When the project started, the country office was opened in Tarija (8 hours far from the project area), because the headquarters of Esperanza Bolivia were located in that city. But now, with SEDES Potosi and the municipalities as the main partners, it makes more sense to have the liaison office in Potosi. Besides, Potosi is only 1-2 hours from Linares, the area in which we are expanding project activities, and a new road is under construction to Cotagaita. Potosi is a secondary city where it is easy to conduct financial transfers, make deposits to the Social Security, and related services.

Human resources: In the project area it is very difficult to obtain qualified services (computer repair, transcriptions, artwork) and to retain professional staff. Local hire project staff, while highly motivated and competent, are more reserved than people in other parts of Bolivia. In general, health professionals do not like to stay long in Cotagaita because they do not believe this work will advance their careers. Retention rates are low. MCDI is promoting career advancement by offering flexible schedules for those enrolled in part-time postgraduate studies; involving MCDI staff in all training; and using an email account to provide access to reference materials and technical reports.

Communication: Phone lines are not reliable in Potosi; Cotagaita is sometimes left without phone contact for several days. Email is also difficult because of power outages.

The population in the project area speaks Quechua. MCDI staff is bilingual and conducts educational activities in the aboriginal language. There are no good roads, many communities must be reached traveling on the river bed during the dry season. The liaison office in Potosi will facilitate continuous communication with HO and partners.

- Local partner relationships: There has been a high turnover in senior staff at all levels within MOH. This forces the team to repeatedly explain the goals and operations of the project to the new authorities. Cotagaita is a fractured society, with polarization by political party. Every time a new administration takes over, employees hired in the previous administration are fired to make room for individuals from the party in power. The Government of Bolivia is only now in the process of articulating a national health policy. Most parties use government positions to push their own agenda, dismantling most initiatives of the previous administration. MCDI is currently strengthening its collaboration with municipalities who are less affected by changes in central government.

- PVO coordination/collaboration: MCDI Bolivia has not yet been admitted to PROCOSI, a PVO/NGO network supported by USAID, although the Projectg team continues to collaborate with them. PROCOSI will enact new admission rules in late December and MCDI will then make a decision whether or not to join. USAID/B is supporting another network to be managed by PROSALUD. MCDI Bolivia plans to work closely with both networks. MCDI Bolivia is scheduling site visits to other CS programs in Bolivia, facilitating the exchange of experiences. MCDI continues to communicate and collaborate both local NGO networks on initiatives, such as IMCI, in Bolivia that are supported by the CORE group and USAID. The Project team continues to network with other Bolivian institutions such as PROSIN, Basic Health Insurance, Nur University and local NGOs. By networking with institutions with a similar mandate, MCDI maximizes the use of resources, sharing lessons learned.

- Other relevant management systems:

In response to a USAID Mission recommendation, MCDI has added a Child Survival Specialist to the project team. Dr. Alfaro, a physician specialized in Community Health, with extensive experience in the management of programs aimed to promote rural health, has been leading the project technical team since October. Dr. Alfaro, a former faculty member at the Sucre medical school, is experienced in community education, quality assurance, program management and evaluation. His prior work experience and negotiation skills with SEDES, the Basic Health Insurance scheme and EXTENSA will help the project reach consensus among multiple partners, and increase access to quality health services for the rural poor. Dr. Alfaro has already added significant value to our activities, as evidenced by this annual report. In response to a request by USAID/Bolivia to demonstrate results to date, Dr. Alfaro conducted a household survey with a small sample as a reliable way to collect data on maternal practices. Dr. Alfaro is based in Cotagaita and provides day-to-day technical and managerial support to the local team.

An institutional capacity assessment, ISA, was conducted with support from CSTS in late 2001, the analysis was completed in early 2002. The requests made by the field teams for management improvements have all been addressed by the Home Office. The results are included in annex 4. An audit has been scheduled for December.

H. IMPORTANT ISSUES, SUCCESSES, NEW METHODOLOGIES, OR NEW PROCESSES THAT HAVE SERIOUS POTENTIAL FOR SCALE UP (EG. NATIONALLY, REGIONALLY)

MCDI is currently conducting a cost study, using proprietary software, MedCost, that will help municipalities determine the real cost of health services that they are providing to the population. With this information, they can negotiate increased reimbursements from the Basic Health Insurance program while maintaining operational capability. A progress report is included as Attachment E. MCDI has plans to transfer this technology to the municipalities, as stated by the DIP. At the end of the project, municipalities will be able to measure with precision the cost of health services they are providing.

MCDI Home Office is developing, in coordination with CSTS and CORE's Nutrition Working Group, tutorial applications in Flash MX (a very flexible computer program) aimed at improving distance education for health workers and Project staff. These applications can be easily adapted for a variety of mediums: a) Interactive tutorials for institutions (e.g. Nur University, MOH Central, PROCOSI) with modern computers and/or fast Internet connections; b) the same tutorials, scaled down in diskettes for use in old computers existing at SEDES, local NGOs and municipalities; c) tutorials in regular video format to be broadcast using VHS or local TV; the audio broadcast using radio; the digital images, plus brief text, saved in "comic book" format, for use with community based providers and auxiliary nurses with limited reading skills, where there is no electricity. MCDI HO staff has experience in computer-assisted education and use of puppets and materials related to education.

MCDI is monitoring maternal behaviors by drawing small samples, using the stratified protocol of LQAS, but only in intervention communities (see also Annex 3). PROSIN conducted recently a LQAS survey in Potosi and other departments, but no inferences are possible at the district level. The information collected by MCDI will be shared with partners, including PROSIN. Combined with the routine information provided by the SNIS, the information will improve planning and management by municipalities.

MCDI/HO has been contacted by a US-based private enterprise, Fovioptics, to consider a partnership for the development of a device for non-invasive assessment of anemia. Although the DIP dropped the nutrition intervention included in the original proposal, MCDI is considering reinstating this intervention during the proposed extension period due to poor nutrition, lead poisoning and other conditions that reduce hemoglobin

concentration in the project area. Fovioptics' technology is especially appropriate for this area because of the lack of maternal compliance with blood drawing, for cultural reasons. Fovioptics has also contacted the CORE Group's Nutrition Working Group looking for advice in the development of a device useful for the PVO community that is rugged, user-friendly, and inexpensive. The PVO community regards this technology as very promising because reduces exposure to contaminated blood (hepatitis, HIV), eliminates costly supplies and provides immediate results to the mothers.

I. REQUIREMENTS FOR ADDITIONAL INFORMATION

MCDI needs to collect more information on the performance of community-based providers. During outreach visits, instead of displacing the promoter, auxiliary nurses will assess the skills and performance of the RPSs.

Annex 1: **Supervision of institutional providers- IMCI checklist**

Supervisory visits were conducted during 2002 using the IMCI checklists developed in the previous year. Supervised personnel were auxiliary nurses, working in health posts. MCDI staff provided supervision. Data was hand-tabulated. Indicators 9 and 12 were omitted because data lacked consistency.

Table 2: Supervision

No	Indicator	Number Correct/ valid sample
1	Assesses 4 danger signs (unable to drink/eat, vomit, seizures, sleepy)	11/14
2	Asks about cough, register and classifies respiratory diseases	9/14
3	Treats cough, counsels on treatment, gives new appointment	4/9
4	Asks about diarrhea, registers and classifies diarrheal episode	14 /14 asked, 4/8 classified correctly
5	Treats diarrhea, counsels on ORS, gives new appointment	4/8
6	Counsels on dietary management, ORT, danger signs	8/10
7	Assesses fever	12/14
8	Assesses infant nutrition (weight-for-age)	8/13
10	Assesses immunization status	7/14
11	Counsels mother about immunizations	9/13
13	Registers information properly	5/11
14	Gives new appointment to the mother	8/13

While a low proportion of the auxiliary nurses satisfied all above-mentioned criteria, there is progress –in comparison with health facility assessments conducted at baseline- when individual indicators are taken into account. There are missed opportunities to detect children with incomplete immunizations. Treatment and counseling still need improvement. The records are complete, and the information is not adequately registered. For instance, some health workers do not record immunizations in the child's card. This low quality of records affects also the data contained in the SNIS.

Annex 2, Table 3: **Training and technical assistance**

	Course/ workshop/ TA	Date	Site	Trainees	Facilitator
	Monitoring& Evaluation, Reporting	Dec 2001	Cotagaita	MCDI staff	Pansini
1	Behavior change/IEC	Apr 2002	Cotagaita	MCDI staff	Castrillo
2	Neonatal resuscitation	May 2002	Cotagaita	23 health professionals and auxiliary nurses, including MCDI staff	Italian cooperation
3	Clinical IMCI	May 2002	Potosi	12 health professionals, 2 from Puna	Castrillo
5	Community IMCI, 3 workshops	June, July and August 2002	Tupiza, Vitichi, and Cotagaita	51 health workers, mostly auxiliary nurses	Castrillo
6	Maternal and neonatal health	June 2002	Potosi	5 health professionals, one from CARE	Conchari Castrillo
7	Maternal health, C-IMCI	August 2002	Cotagaita	MCDI staff	Castrillo
8	M&E, improving data analysis and presentation	September 2002	Cotagaita	MCDI staff	Benavente
9	Obstetric emergencies	September 2002	Cotagaita	17 auxiliary nurses	Conchari
11	Computer applications for health management	August 2002	Cotagaita	12 health workers from hospital, district	R Garcia

Annex 3:

Survey in project targeted communities to assess behavior change

I. Objective:

During October 2002, the field team conducted interviews to monitor maternal behaviors related to project interventions in communities already exposed to health education activities (HH-C IMCI/ IEC). Internal comparisons between districts were not made.

II. Background:

The last National Census (2001) indicated that Potosi and particularly the province of Nor Chichas, where the project is located, demonstrated little or no improvement in most demographic and health indicators during the past decade. 94.2% of the population in Nor Chichas is classified as poor (unsatisfied basic needs: housing [poor materials = 84.4%, too small 56.7%], sanitation (87.4%), electricity (91.6%), education (81.5%) and health care (51.0%)).The rate of unsatisfied needs in Nor Chichas has not changed since the previous census (94.3% in 1992.)
Most houses have adobe or stone walls, with straw roofs. There are an average of 3.9 members/ family and 2.9 family members/dorm. Only one tenth of the households are connected to tap water or sewage lines. 58% use wood as cooking fuel.
These findings indicate that Potosi, and Nor Chichas in particular, should remain a high priority area for health and development initiatives.

III. Design:

- Universe: Mothers with children under 2 years of age living in communities already intervened with HH/C-IMCI. This survey may not reflect maternal behaviors in the general population of the entire project catchment area. In this sense, this survey does not use a sampling methodology comparable to conventional 30-cluster KPC or LQAS surveys that draw subjects from the general population. Only the municipalities of Cotagaita and Vitichi were included in this survey. The municipalities of Puna and Caiza D are in the process of starting project interventions, and as stated above, only intervened communities were selected.

- The design corresponds to a quasi-experiment, before-after, without a comparison (non-intervened) group.

  Baseline observation -> HH/C-IMCI educational intervention -> New observation

- Sample size: To ensure the sample was representative a stratified sampling was chosen. There were two municipalities, and two age groups, with 76 mothers interviewed in total. Similarly to LQAS surveys in the general population, a small sample per strata (19 children) was chosen, making the survey attainable in two weeks of fieldwork.

Table 4: Distribution of the sample by age group and municipality

¯ Age group / Municipality ®	Cotagaita	Vitichi	Total
Children below 12 months	19	19	38
Children 12-23 months	19	19	38
Children below 24 months	38	38	76

The precision for the estimates of coverage rates was comparable to the baseline KPC, because of the stratified sampling in the latest survey.

- Sampling procedure: Communities and households were selected following this procedure:

a) Intervened communities were listed. There were 88 communities comprising 92 mothers groups. An estimate of number of household in each community was undertaken if the census data was not available for that community.
b) Using sampling proportional to the population, communities were selected using a random starting number and a random interval. In each selected community, 1-2 mothers with children under 12 months and 1-2 mothers with children aged 12-23 mo. had to be interviewed. In no instance the same household or mother was interviewed collecting data from more than one child.
c) Once in the field, the mother to be interviewed was selected randomly, using one of the following procedures:
    - If there was an updated census, the mother was selected from this sampling frame by drawing names written on small pieces of paper
    - If there was a map of the community containing the location of households with children, the sample was selected as above by drawing names.
    - If no census or complete map was available and the community had 100 households or more, the field team divided the community in 4 quadrants containing approximately the same number of households. A quadrant was randomly chosen and households listed if clustered. A child under 12 mo. and a child 12-23 mo. were then selected in parallel.

- Survey instrument:

MCDI field staff had developed in early 2002 an abridged questionnaire containing 38 questions related to the project interventions. This survey tool was reviewed to ensure contained all key maternal behaviors related to the HH/C-IMCI interventions conducted by MCDI in the project area. Attachment C includes the questionnaire in Spanish, Quechua and English. All MCDI's staff is bilingual and interviews were conducted in Quechua.

- Comparison with standard LQAS survey. The table shows the similarities and differences of this survey with a LQAS survey following the procedures described in reference 1.

Table 5: Comparison with procedures used in most LQAS surveys

Characteristic	This survey	LQAS survey (ref 1)
Sample size/ strata	19	19
Stratified sampling	Yes	Yes
Recommended number of strata (lots)	4	5
Recommended total sample size	76	95
Comparison between supervision areas	No	Yes
Draws the sample from	Intervened communities	General population

IV. Training and QA:

MCDI's four health professionals--three Registered Nurses and a physician—who are already experienced in survey methodology, collected the data. . The survey methodology was discussed in two sessions. A demonstration exercise with plastic beads was conducted to prove that small samples could serve to identify areas with insufficient coverage. Hard and electronic copies of a LQAS manual produced by Joe Valadez, translated by L. Benavente, were left with the field team for self-study and further reference. The sampling of rural communities was made with the team and later shared with the health district authorities. They approved conducting the surveys during outreach visits to rural communities as part of the national immunization campaign between October 7 and October 19, 2002. During fieldwork, Dr. Alfaro provided close supervision of the field team. Hand tabulation was completed during the period October 20-23, 2002. This was supervised by JLA with support from Luis Benavente, HO.

V. Data analysis:

Although MCDI has the systems to process the data with assistance of computers, the technical team found more useful to conduct a hand tabulation exercise with the project partners. For this purpose, all variables were dichotomized (yes/no) to obtain coverage rates or "correct" behaviors. Figures in Attachment B show baseline and post-intervention coverage rates. Vertical lines correspond to 95% Confidence Intervals.

Baseline figures are self-adjusted because a larger number of clusters were selected in districts with more population. Since Cotagaita and Vitichi do not have comparable population numbers, coverage rates have been adjusted (unless stated otherwise) for the charts using the procedure described by Joe Valadez in reference 2. Attachment A displays unadjusted coverage rates, which are very similar to adjusted rates.

Confidence intervals were obtained with different formulas:
2000: Confidence interval **$P = p \pm 2^* Zd$** **where** $d = \sqrt{(pq/n)}$ where:

Z = 95% confidence = 1.96
P = true proportion in the intervened population (universe of this survey)
p = proportion found in the survey
q = 1-p
n = sample size
2 = factor to compensate for Design Effect (cluster sampling)

2002: Confidence interval: (reference 2)

Strata	Number correct	Num/strata	Prevalence	Population	wt=Ni/ΣN	wt*p
Cota 0-12	3	19	15.8%	27,484	0.3198	0.0505
Cota 12-23	4	19	21.1%	27,478	0.3198	0.0673
Viti 0-12	3	19	15.8%	15,483	0.1802	0.0285
Vit12-23	3	19	15.8%	15,483	0.1802	0.0285
total		76		85928	Adjusted coverage rate =	17.5%

Confidence Interval of adjusted coverage rates:

p = prevalence, expressed as a probability .37= 37%)
q= 1-p (expressed as a probability)
wt2 = wt squared

Strata	wt2	p*q	Wt2*(pq)/n
1	0.1023	0.132964	0.000716
2	0.1023	0.166205	0.000895
3	0.0325	0.132964	0.000227
4	0.0325	0.132964	0.000227
total			0.002065
Adjusted Confidence Interval:			8.9%

CI= 1.96*SQRT(Σ wt^2*(pq)/n)

VI. Results

a. General characteristics:

Distribution of the children in the sample by sex and age: 37 (48.7%) of the children were male, the remaining 39 female. The average age was 11.5 months, with a standard deviation of 6.44 months.
Maternal age was 30.9 ± 8.06 years, in comparison with 29.3 years of average age at baseline. The distribution of mothers in the sample by instructional level attained is as follows: 12 mothers (15.8%) had no education; 54 (71.1%) mothers had basic level; the remaining 10 mothers had intermediate level or high school. The attained educational level found at baseline showed a similar distribution. Those control variables indicate the samples in both surveys are comparable.

b. Immunizations

Possession of vaccination card: The proportion of children with immunization cards has increased significantly since baseline, from 41.9% to 83.7% (Fig. 1).

BCG coverage increased from 32% at baseline to 80.3% in 2002 (denominator= all children in the sample, Fig. 2).

Rapid CATCH: Measles vaccination coverage among children in their second year of life increased from 24% (30/125) at baseline to 55.3% (21/38) in 2002 (Fig 3). All children are counted in the denominator.

Rapid CATCH: EPI Coverage (BCG3, DPT3, OPV3, and measles before the first birthday) increased significantly in the last 2 years, from 33.3% to 62.5%. This indicator includes only children in the age range 12-23 months, with immunization cards (Fig. 4).

Vitamin A coverage: Immunization cards do not show a statistically significant increase in vitamin A supplementation coverage in the last 2 years, although vitamin A coverage rate rose from 15.1% to 26.7% (Fig 6). However, there might be under-registration. A larger proportion of mothers recall taking her child for Vitamin A supplements, 43% in 2000 and 83% in 2002 (Fig. 5). Supervisions to rural posts have shown that some auxiliary nurses update only the immunization card that is kept in the health service, neglecting to update the card that is kept by the mother.

The proportion of mothers that received two tetanus vaccines during her last pregnancy almost doubled in the last 2 years from 8.8% in baseline to 17.5% in 2002. However, this lacks statistical significance, because confidence intervals are overlapped. (Fig. 8)

c. Diarrhea management

The proportion of mothers that give the child more breastmilk during diarrhea in 2002 (10.7%) tends to be lower –but not significantly- in regard to baseline, 17.3%. (fig. 9)

The proportion of mothers that maintained feeding (same or more food) during diarrhea is flat, 50% at baseline, 46.8% in 2002. (Fig. 10)

The proportion of mothers that gave the child more liquids during diarrhea improved significantly, from 28.2% at baseline to 45.6% in 2002. (Fig. 11)

The percentage of mothers using ORT during the child's diarrhea also increased significantly, from 49.1% at baseline to 87.1% in 2002. (Fig. 12)

In brief, dietary management of diarrhea has not improved in the last 2 years, while maternal practices aimed to keep the sick child well-hydrated did.

Knowledge of danger signs: KPC 2000 has dropped questions related to maternal knowledge because of lack of reliability of those questions and poor correspondence with maternal practices. The scoring criteria proposed in the DIP (mothers should mention all 3 danger signs in each category to pass) are too stringent and not useful to demonstrate changes. While around half of the mothers surveyed in 2002 mentioned one or more danger signs for diarrhea (Fig. 13), less than 10% mentioned three danger signs.

d. Pneumonia management

Knowledge of danger signs: mothers are not aware of chest indrawing as a danger sign. The report of 5% at baseline was a mistake. Only 1/284 (0.35%) recalled that sign. Thus, instead of scoring alls signs, we plan to analyze all signs and symptoms individually. Similar procedure will be made for diarrhea, danger signs of pregnancy and for the newborn.

In comparison with baseline, more mothers name fast breathing as a danger sign (25.5% in 2002, 7% in 2000). This difference is statistically significant (Fig. 14).

The proportion of mothers that sought help from a health worker if the child had cough and fast breathing increased significantly from baseline (33.3%) to 57.4%. (Fig. 15) The proportion of mothers that sough helping the same day also increased significantly from 9.1% at baseline to 48.9% in 2002. (Fig. 16)

f. Maternal health

54.1% of mothers had a pregnancy or maternal card in comparison with 26.4% at baseline. This increase is statistically significant. (Fig. 7)

The proportion of women that had received prenatal care during the last pregnancy, 82.7% in 2002, is significantly higher than in baseline, 71.1%. (Fig. 17) However, the proportion of women with 4 or more prenatal visits has remained flat, 45% at baseline and 48% in 2002. (Fig. 18)

More women are receiving iron supplements (78.6% in 2002) than in year 2000 (59.5%). (Fig. 19). This increase has statistical significance. Slightly over one third of the women, 35.8% in 2002, complete 3 months of iron supplementation. The latter coverage rate is statistically higher than the corresponding rate in 2000 (9.5%, Fig. 20)

During 2002, a higher proportion of women named bleeding (28.7%) and swelling (20.3%) as dangers signs during pregnancy. This is a significant increase since baseline, which found 6.3% and 8.8%, respectively. However, the proportion of mothers naming seizures has not changed in the last 2 years. The proportion of women naming a danger sign quadrupled (Fig. 21).

Roughly the same proportion of mothers in both surveys said they intended to use health facilities in case of danger signs during pregnancy, 80.2% at baseline and 85.9% in 2002 9Fig. 22). Health workers attended only a small percentage of women during delivery, 31.5% in 2002. Still, this represents a statistically significant increase since baseline, 22.9%. 9Fig. 23)

More women had postnatal visits, from 36.6% at baseline to 68.3% in 2002. This is statistically significant. (Fig. 24)

In 2002, 54.6% of the newborns had been put to the breast within the first hour of birth. Unfortunately, the way the question was phrased at baseline (immediately, before the placenta was expelled) does not allow a proper comparison. (Fig. 25)

In 2002 43.5% of the women had been counseled on child spacing/family planning during postpartum visits (Fig. 26). This represents a statistically significant increase over baseline (13%).
The proportion of women that received vitamin A supplementation after giving birth increased significantly from 12.7% at baseline to 48.5% in 2002. (Fig. 27)

The proportion of women naming a correct danger sign in newborns tripled between 2000 and 2002 (Fig. 28).

g) Other Responses: Feeding practices. Note: In the following case only, unadjusted rates were used.
74.1% of the children (over 6 months of age) were receiving solid or semisolid foods.
The number of feeding times was within the recommended range for the child's age in 27.6% of the cases. (See definition in the questionnaire.)
The amount of food given to the child each feeding time was within the recommended range in 50.9% of the cases. (See definition in the questionnaire.)

VII. Discussion

Methodology

This survey incorporates some concepts and methods from LQAS surveys (a small, stratified sample). Since this survey was restricted to intervention populations, living in remote hamlets, the sample does not necessarily represent the general population in this province. The survey was aimed at monitoring behavior changes, complementing existing monitoring capabilities using routine SNIS data.

Access to basic health care

In general, mothers in the intervention communities have improved household behaviors and health care seeking practices, but there is room for improvement. Dietary management of diarrhea has not changed. Mothers still prefer their deliveries to occur in their own household, without the assistance of a trained provider. This problem has deep cultural roots: deliveries are seen as a natural process, not as a threat to maternal health. The Health Insurance is not fully functional and some expenses, such as transportation, are not reimbursed to the patient. According to the most recent data (reference 4), overall access to health care by families in the lower quintile of income has not improved. However, this survey provides evidence that the rural populations in the project "catchment" area have increased access and utilization of essential health care services including immunizations and care of sick children. CPCSP - working continuously in this area- seems to be making a difference at the community level, helping to close the gap between health services and rural families.

This is being achieved by a) increasing awareness about danger signs and services being offered by the basic Health Insurance scheme; b) promoting community organization and solidarity; educating community-based providers; c) training and supervising auxiliary nurses to improve performance; d) facilitating outreach activities and providing integrated services to the rural poor, comprised almost exclusively of Quechua natives; and e) improving the planning, budgeting, monitoring and evaluation of maternal and child services by the municipalities.

Data from HIPIC (a debt relief program for Highly Indebted Poor Countries, see reference 6) shows that aboriginal people such as the Quechuas served by this project are less likely to have education and other basic services, and receive 40% less income that non-aboriginal groups.

Comparison with other data sources

As stated above, the universe for this survey was women with children under 2 years, living in the rural communities already targeted by the CPCSP. Thus, caution should be used in any comparison with the general population. The final round of household surveys, scheduled for July 2003, might include as a comparison area a district scheduled to be phased-in during the last quarter. The final survey will also be compared with data from the 2003 DHS. The latest DHS survey was conducted in 1998, before the project started and its results may not reflect current health status.

SNIS complete data is available for year 2001. An analysis of SNIS data stratified by quintiles of income (municipality level) showed that the gap between the poorest and richest municipalities in the utilization rate of prenatal care has not changed between 1998 and 2000 (see attachment D).

Data on maternal and neonatal health collected in this survey is consistent with the latest National Census (2001), reporting for Nor Chichas (the province comprised by Cotagaita and Vitichi) 24.6% of births assisted by a trained provider. As stated above, our survey found that 31.5% of births were assisted by a health worker.
According to the 2001 Census, in Nor Chichas 73.4% of infants were born at home.
MCDI's 2002 survey is also consistent with the SNIS (MOH HIS), showing for Nor Chichas a low rate of institutional birth (16.6% in 2001) as well as birth at home assisted by a trained provider (17.5%).

Data on immunization coverage rates is less consistent: according to the SNIS, in 2001 measles coverage rate for this province was 98.2%, twice the rates found in our survey.
BCG coverage in 2001(SNIS) was 82.8% while our survey found 76.2%.
Vitamin A supplementation coverage in children 6-11 months of age was 119% in 2001 (SNIS), four times the rate found in our survey.
Iron supplementation rate among pregnant women was higher according to the SNIS (57.5%) , in comparison with 35.8% found in our survey.
In contrast, our survey found a higher proportion of women with 4+ prenatal visits (48%) than the coverage reported by the SNIS (33.1%)
Coverage rates for vitamin A supplementation among women that gave birth are similar, 49% for our survey and 42% for SNIS.

In spite of those inconsistencies, SNIS data tends to show a positive trend in coverage rates in the Cotagaita Health District where MCDI started the interventions of the CPCSP. The CS Specialist, Dr. Alfaro, is currently conducting a detailed analysis of trends in coverage rates over time at the National, Departmental, Municipal and District levels.

The SNIS also provides evidence of an increased utilization of some, but not all, basic health services in the project area. Births assisted by a trained provider is on the rise, and the District health authorities give credit to the fact that health workers receive a small monetary incentive from the Health Insurance scheme to provide this service. Other conditions, such as diarrhea, seem to require an in-depth analysis of demographic trends. Nor Chichas has a negative growth, as stated above, as an explanation of apparent changes in the number of services provided.

VIII. Implications for specific interventions

Immunizations:
As stated above, some health workers are not recording immunizations on the card kept by the mother, alleging the high illiteracy rates. This causes inconsistencies between different data sources and forces traveling teams and auxiliary nurses to revaccinate children with no evidence of having being immunized. TAIS (data analysis workshop) is an appropriate place to discuss how under-registration is negatively impacting survey and other data, and schedule follow-up of health workers keeping incomplete records.

The way TT doses are counted is not consistent between SNIS and the KPC 2000 instructions. In areas with high migration rates, SNIS data is not reliable. Therefore, the MCDI project team will triangulate with other data sources for comparison, such as community-based surveillance and household surveys.

Diarrhea
This survey did not collect data on help seeking practices for diarrhea when danger signs are present. Since less than 10% of mothers could recall key danger signs, the educational strategy must be reassessed and other methodologies considered that capture their attention: puppets, drama, videos. There is no TV in most rural communities, and many mothers have not watched TV since they usually do not go to the city.
Feeding practices during diarrhea are still very poor; most mothers seem to believe that their children must "rest the gut." In addition to improving knowledge, educational activities could include cooking demonstrations of nutritious preparations that mothers could feed to a sick child.

Pneumonia
As for diarrhea, few mothers are able to name danger signs, fewer name chest indrawing.
Since few children had cough and fast breathing, it has been suggested that future surveys should pool all sick children (diarrhea and/or cough) for whom danger signs are present. This will increase the sample size for questions related to home management and help seeking behaviors.

Maternal and neonatal health
MCDI plans to collect more information on the performance of health workers in specific tasks, such as prenatal care. Although many women do not have the recommended four prenatal visits, it will be useful to assess what is achieved during the first visits: are most mothers advised about danger signs? Given iron supplements?
Few mothers recall key danger signs. The project plans to explore participatory, popular educational methods –such as drama- to facilitate recalling all key danger signs.

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Table 6: Sampling frame A: communities already intervened in Vitichi

N	Health service	Community	Number of households	Cumulative population	Total number of surveys	Infants, <12mo	Children 12-23mo
1	Vitichi	Vitichi	379	379			
2		Tecla Alta	53	432			
3		Chapicollo	165	597			
4		Toquenza	191	788			
5	Calcha	Quiquila	87	875			
6		Laurachica	124	999			
7		Chalabi	251	1250			
8	Pecapsi	Pecapsi	193	1443	2	1	1
9		Topacha	70	1513			
10	Peca	Peca	53	1566	2	1	1
11		Quehuaca chica	144	1710			
12	Yulo	Yulo	82	1792	2	1	1
13		Vasquez	50	1842			
14		Chosgo	100	1942	2	1	1
15	Quehuaca grande	Quehuaca grande	144	2086	2	1	1
16		Yuraj Cancha	98	2184			
17		Estumilla	87	2271	2	1	1
18	Tusquina	Tusquina	176	2447	2	1	1
19		Surumajchi	147	2594	4	2	2
20	Yahuisla	Yahuisla Rijchari	445	3039	4	2	2
21		Yahuisla Parroquia	445	3484	2	1	1
22		Villa Pacheco	141	3625	2	1	1
23		Ampampa	103	3728	4	2	2
24		Yahuisla cristianos	445	4173	2	1	1
25	San Antonio	San Antonio	75	4248			
26		Tambalilla	60	4308			
27		Tarcapsi	35	4343	2	1	1
28		Azul Cocha	107	4450			
29	Aripalca	Aripalca	83	4533			
30		Ara	53	4586	2	1	1
31		Concepcion	50	4636			
32		Orcola	36	4672	2	1	1
			4672	246	38	19	19

Table 7: Sampling frame B: Communities already intervened in Cotagaita

N	Health facility	Community	Number of households	Cumulated number	Total number of surveys	Infants, <12mo	Children 12-23mo
1	Laytaphi	Quenchamali	52	52			
2		Cala Parque	34	86			
3		Laythapi	99	185			
4	Thapy	Falsuri	58	243			
5		Thapy	85	328			
6		Churquipampa	64	392			
7	Totora	Punto Suelo	176	568			
8		Palca Lily	143	711			
9		Totora – I	231	942			
10		Tres Cruces	140	1082	2	1	1
11	Cazon	Ascanti	189	1271			
12		Tarija Pampa	43	1314	2	1	1
13		Churo	84	1398			
14		Challa I	77	1475			
15	Cotagaita	Ascapa	50	1525	2	1	1
16		Luchuma	142	1667			
17	Cotagaitilla	Iriccina	103	1770	2	1	1
18		Cotagaitilla	280	2050	2	1	1
19		Peras Pampa	97	2147			
20		Cayti	112	2259	2	1	1
21	Moko Pata	Rancho	42	2301			
22		Tacala	85	2386			
23		Chawisa	37	2423			
24	San Jorge	Jorjochi	58	2481	2	1	1
25		San Jorge	93	2574			
26		Sanagati	87	2661			
27	Calila	Calila	120	2781	2	1	1
28		Saropalca	75	2856			
28	Cornaca	Manzanal	129	2985	2	1	1
30		Cornaca	219	3204			
31		Cruz Pampa	76	3280	2	1	1
32	V. Concepción	Villa Concepción	88	3368			
33	Collpa I	Collpa I - Quelcata	183	3551			

34		Lakawasi	30	3581	2	1	1
35		Pampa Grande	100	3681			
36	Tablaya Chica	Puquilia	61	3742			
37		Tablaya Chica	127	3869	2	1	1
38	Limeta	Lury	57	3926			
39		Limeta	140	4066			
40		Tablaya Palca	35	4101	2	1	1
41		Molle Kahua	50	4151			
42	Chui Chui	Cheque	81	4232			
43		Chu iChui /Majuelo/ Vina	82	4314			
44		Mormoque	52	4366	2	1	1
45		San Lorenzo	64	4430			
46	P. Grande	Pampa Grande	166	4596			
47		Pasto Huayco	31	4627	2	1	1
48	P. Higueras	Palca Higueras	45	4672			
49		Cerro Colorado	66	4738			
50		El Rancho	78	4816			
51		La Carreta	26	4842	2	1	1
52	Vichacla	Vichacla - Sirve	168	5010			
53		Chequelte	96	5106	2	1	1
54	Escara	Escara - Puesto	105	5211			
55		Tambo Huayco	55	5266	2	1	1
56	Tocla	Tocla Rancho	156	5422	2	1	1
57		Tocla - Riveralta	158	5580			
58	Tumusla	Patirana	46	5626			
59		Tumusla	80	5706			
60		S Juan de Prieto	60	5766			
			5766	303	38	19	19

Annex 4: <u>Organizational Capacity Assessment</u>

An Institutional Strengths Assessment was conducted by MCDI with support from the CSTS in March 2002. During the preparation phase of this Institutional Strengths Assessment, MCDI's leadership in Maine and Washington requested that the design of the ISA process be modified to allow MCDI to approach this assessment as a capacity building activity. MCDI asked to have designated staff involved in the facilitation of the Self-assessment meeting, analysis of field and HQ data, and preparation of the ISA report so that the organization would be well-positioned to replicate the ISA process in the future, or to adapt the ISA tools to field programs or local partners.

The exercise assessed MCDI's institutional capacities along the following six categories:

Use of Technical knowledge and skills

Areas of strength:

- Use of Technical Knowledge and Skills is the strongest capacity area overall for MCDI, receiving the highest average score from both home office staff and field staff
- Project interventions are regularly based on recognized national or international standards, and International Division staff report that they consult a diversity of quality resources to keep informed of state of the art information in the health arena.
- MCDI encourages the development and implementation of projects with high levels of community involvement.
- Note: Self-Assessment Meeting participants identified Emergency Medical Services and Community-based Health Care Financing Schemes were two areas of technical strength that had not been included in the ISA tool.

Challenges:

- Scores from field staff suggest that monitoring and evaluation; behavior change communication; and the conducts of organizational capacity assessments are the areas in which technical backstop support might be improved/increased.

- There appears to be no formal mechanism at present for International Division staff to tap into the expertise of the Maine-based Child Survival Technical Advisory Group, or for Maine-based staff to learn from the technical expertise of the D.C.-based staff. Finding a way to address this challenge could lead to increased technical capacity of both groups and the organization as a whole.

Addressing challenges:

The Home Office Child Survival Coordinator will provide technical support and train project staff in monitoring and KPC surveys. The CS Coordinator was recently trained by CORE/CSTS

in KPC 2000 Training of Survey Trainers. The project has trained one field staff and one Home Office staff in the BEHAVE Framework, organized by AED. Recently, the field office staff were trained and assisted by an external consultant in conducting the GAPS Analysis. A Behavioral Analysis was performed by the field team based on the results of the GAPS Analysis, the results of which will be used by the team in developing a behavior change intervention and strategy for the project.

Administrative Infrastructure and Procedures

Areas of Strength:

- Field staff access to an Internet connection should facilitate communication between the U.S.-based offices and field programs.

- There is relatively strong agreement that regular progress reports are submitted to backstop staff from field programs on a regular basis.

Challenges:

- Self-assessment discussions suggest a need to have annual reviews of hardware and software.

- Self-assessment discussions suggest a need for improved security of computer systems.

- Self-assessment discussions suggest a need for better off-site back up of data.

- There is a high level of disagreement between HQ and field staff regarding the existence and regular updating of administrative procedures. Several field recommendations request information on administrative procedures.

- There is a high degree of disagreement between HQ and field staff regarding the timely procurement and delivery of supplies to field programs, wherein the field perceives this process to be slower than it could be.

Addressing challenges:

The field staff have been updated on the administrative procedures. Field teams are now routinely supplied with hard copies of policy manuals, Title 22-Part 226 of the USAID CFR, and the MCDI financial management manual. Additionally, in response to a specific recommendation to make relevant reference materials, child survival technical documents and other materials accessible through the MCDI website, these documents and relevant linkages to other websites have been placed on a password protected section of the MCDI website.

Organizational Learning

Areas of strength:

- There is a high level of agreement between field and Home Office respondents that the organization's health projects fit will within MCDI's vision and mission.
- Both field and home office respondents feel that the organization provides appropriate support if/when issues of conflict or disaster disrupt program operations.

Challenges:

- Field recommendations suggest a need for clarity regarding reporting relationships and lines of communication, organizational structure, and delegation of authority.
- There seem to be opportunities for enhanced collaboration and cross-learning between the Maine staff and the Washington-based staff in the International Division.

Addressing challenges:

In response, MCDI has scheduled and implemented annual visits by field managers to the home office and the home office child survival coordinator to the field office to share lessons learned and to provide the home office with a firm understanding of field implementation issues. Field manager visits are scheduled to coincide with the annual Global Health Council Conference.

Financial Resources Management

Areas of Strength:

- There is agreement between HQ and field respondents that financial resources are transferred from HQ to the field in a timely manner.
- Both HQ and field staff agree that the organization encourages and supports the identification of new/emerging funding sources for its programs/projects. This is reinforced by the information reported on the organizational profile which suggests that the organization has a diverse array of funding sources for its international projects.

Challenges:

- Self-assessment discussions as well as ISA field data suggests a need to develop a system that improves access to current financial data.
- ISA discussions suggest a need to streamline entry of cost data and processing of funds transfer—the current system appears to have too many opportunities for problems and errors.

- ❖ Field recommendations and ISA scores suggest a need to examine communication between HQ and field regarding financial reports and related data. Some field respondents report confusion or problems with financial information sent by HQ, others request clarity on protocols regarding budget modifications.

Addressing challenges:

In collaboration with its head office in Maine, MCDI has transitioned to a new web-based financial management system that permits all field managers password protected access to line item expenditure summaries that are updated monthly.

Human Resources Management

Areas of strength:

- ❖ MCDI field staff have presented and/or participated in regional meetings/workshops related to Child Survival, as well as annual meetings of the Child Survival Collaborations and Resources Group (CORE).

Challenges:

- ❖ Self-assessment discussions and ISA data suggest a need to share knowledge and experience in a more formal manner at multiple levels: between international projects and between Washington and Maine staff. This includes the sharing of special skills and capabilities (GIS, Public Health, Epidemiology, Healthcare Financing.

- ❖ Self-Assessment discussions suggest that the MCD website could possibly be used for increasing staff interaction, and that the organization might learn from websites it has designed for other customers.

- ❖ There is a high degree of disagreement as to whether visits from health backstop staff are used as opportunities to motivate and encourage the project team in the field.

- ❖ Like many other PVOs, MCDI faces the challenge of finding creative ways to document its lessons learned and share information to promote cross learning, while managing its overhead costs and recognizing that it is not practicable to designate the responsibility for this task to any one individual.

Addressing challenges:

MCDI has gained experience during implementation of current projects, for example, in community-based health care financing, community mobilization, and strengthening the organizational capacity of partners such as local NGOs and the district ministry of health offices. In order to share these lessons learned, it has been suggested that MCDI institutionalize a quarterly child survival newsletter through its website. The first issue of the newsletter was developed and disseminated. However, MCDI is still working to institutionalize and regularize this medium to disseminate these results among all partners and stakeholders. In addition, the

lessons learned will be shared not only with PVO and NGO partners, but also with CORE Group members during the annual CORE Group meeting and presentations that MCDI will make during annual meetings of the Global Health Council. CSP updates are also posted on MCDI's website.

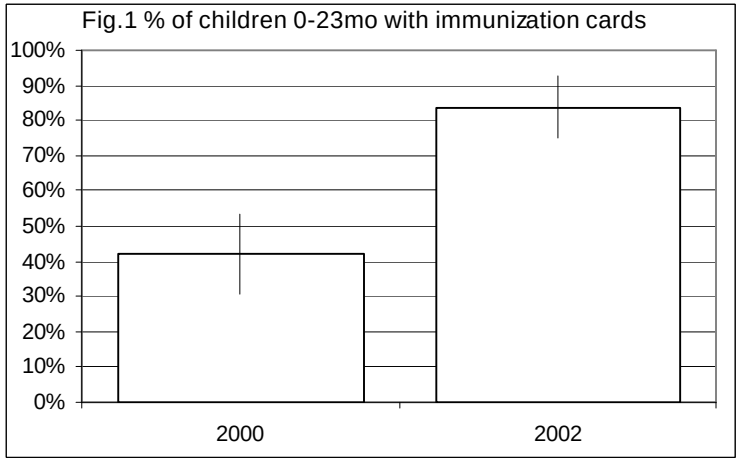
To enhance and further develop field office capacity, MCDI supports field staff participation in various national workshops and international meetings and will continue to promote staff involvement in the various fora related to child survival and maternal health, viz, CORE group annual meetings and CSTS and BASICS training activities. The skills, tools and information gained from these activities are routinely shared with other members of the MCDI team. Over the past two years MCDI staff have participated in workshops focusing on KPC, LQAS, BEHAVE Framework, sustainability, monitoring and evaluation (M&E), and HH/C IMCI.

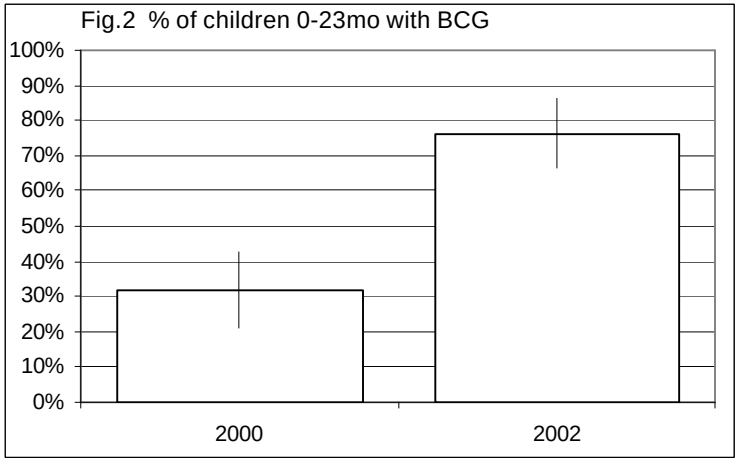
Attachment A

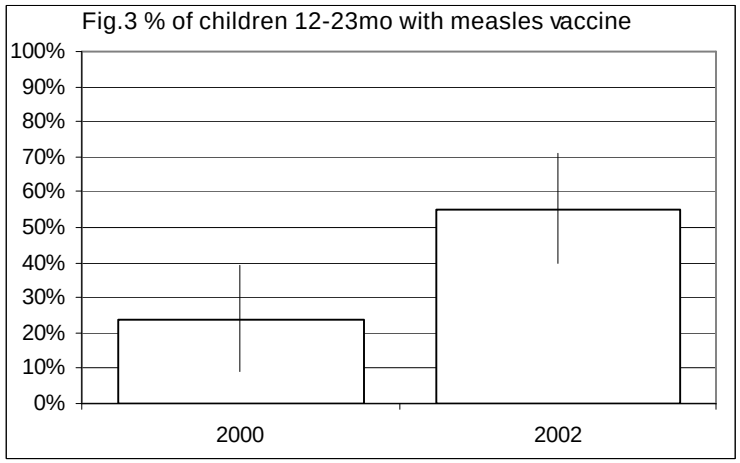
Indicator ↓ Strata →	Number correct by strata (N)				Total Co-rrect , ΣN	Valid sample in each strata (D) (excludes skipped questions, missing data)				Total valid sample ΣD	Unadjusted Average Coverage, ΣN*100/ ΣD
	Cotag, 0-11m	Cotag, 12-23m	Vitichi 0-11m	Vitichi 12-23m		Cotag 0-11	Cotag 12-23	Vitichi 0-11	Vitichi 12-23		%
Immunizations											
1. Child (>6mo) had vitamin A supplements in the last semester (as recalled by mother)	5	16	11	16	48	7	18	12	19	56	85.7
2. Child has an immunization card	16	14	17	18	65	19	19	19	19	76	85.5
3. Child (12-23m) received all immunizations	NA	9	NA	11	20	NA	14	NA	18	32	62.5
3b. Child (12-23m) had measles vaccine	NA	10	NA	11	21	NA	19	NA	19	38	55.3
3c. Child had BCG vaccine before 1mo old	12	13	18	18	61	19	19	19	19	76	80.3
4. Child had vitamin A supplement in last semester according to the card	0	4	7	7	18	7	14	12	18	51	35.3
5. Mother has a pregnancy card	11	11	13	5	40	19	19	19	19	76	52.6
6. Mother had tetatus immunization (2TT) during her last pregnancy	5	2	4	2	13	19	19	19	19	76	17.1
Diarrhea											
8. Increased breastfeeding during diarrhea, denominator= with diarrhea	1	0	2	1	4	6	8	10	10	34	11.8
9. Maintained feeding during diarrhea	2	7	2	1	12	5	8	8	10	31	38.7
10.Increased fluid during diarrhea	3	2	5	6	16	6	8	10	10	34	47.1
11. ORT given during diarrhea	5	7	8	10	30	6	8	10	10	34	88.2
12. Mothers knows one or more danger signs of diarrhea	7	9	11	12	39	19	19	19	19	76	51.6
12b. Mother mentions all three danger signs of diarrhea	1	3	1	2	7	19	19	19	19	76	9.2
Feeding											
13. Child started complementary feeding around 6 months of age	5	12	7	12	36	8	19	12	19	58	62.1
14. Child being given solid/semisolid food	3	16	10	14	43	8	19	12	19	58	74.1
15. Feeding times according to child's age	3	4	4	5	16	8	19	12	19	58	27.6
16. Food amount according to child's age	5	8	10	6	29	9	19	10	19	57	50.9
Respiratory infections											
20. Mother sought help if child had cough + fast breathing	3	4	8	5	20	5	8	10	11	34	58.8
21. Mother sought help from trained provider if child had cough + fast breathing	3	4	6	7	20	3	8	10	11	32	62.5
22. Mother sought help the same day the baby started cough + fast breathing	2	4	6	3	15	4	8	10	11	33	45.5
23. Mother recalls fast breathing as danger sign	7	7	1	1	16	19	19	19	19	76	21.1
Maternal and neonatal health											
25. Mother had prenatal care during last pregnancy	16	14	17	17	64	19	19	19	19	76	84.2
26. Mother had prenatal care with a health worker during last pregnancy	15	14	18	17	64	19	19	19	19	76	84.2
27. Mother had 4+ prenatal visits, last pregn.	6	9	15	9	39	19	19	19	19	76	51.3
28.Mother had iron supplements during her last pregnancy	16	13	18	12	59	19	19	19	17	74	79.7
29. Mother had 90+iron pills during her last pregnancy	4	5	14	7	30	19	19	19	17	74	40.5
30a. Mother mentions one or more danger signs during pregnancy	9	10	8	10	37	19	19	19	19	76	48.7

Indicator ↓	Number correct				Total Co-rrect , ΣN	Valid sample in each strata (D) (excludes skipped questions, missing data)				Total valid sample ΣD	Unadjusted Average Coverage, ΣN*100/ ΣD
Strata →	Cotag, 0-11m	Cotag, 12-23m	Vitichi 0-11m	Vitichi 12-23m		Cotag 0-11	Cotag 12-23	Vitichi 0-11	Vitichi 12-23		%
Maternal and neonatal health (cont.)											
31. Mother mentions all three (bleeding, swelling, seizures) danger signs	0	0	0	0	0	19	19	19	19	76	0.0
32. Mother said she would seek help if she has a complicated delivery	18	15	17	15	65	19	19	19	19	76	85.5
33. Mother can name one or more danger signs in newborns	9	4	11	12	36	19	19	19	19	76	47.4
33c. Mother can name three or more danger signs in newborns	1	0	2	4	7	19	19	19	19	76	9.2
34. Delivery helped by a health worker	3	5	12	7	27	19	19	19	19	76	35.5
35. Mother had postpartum controls	12	10	17	16	55	19	19	19	19	76	72.4
36. Vitamin A supplementation during puerperium	9	8	11	10	38	19	19	19	19	76	50.0
37. Newborn given colostrum in the first hour of birth	10	7	11	16	44	19	18	19	19	76	58.7
38. Mother had child spacing counseling in postpartum visits	8	9	6	9	32	19	19	19	19	76	42.1

Attachment B







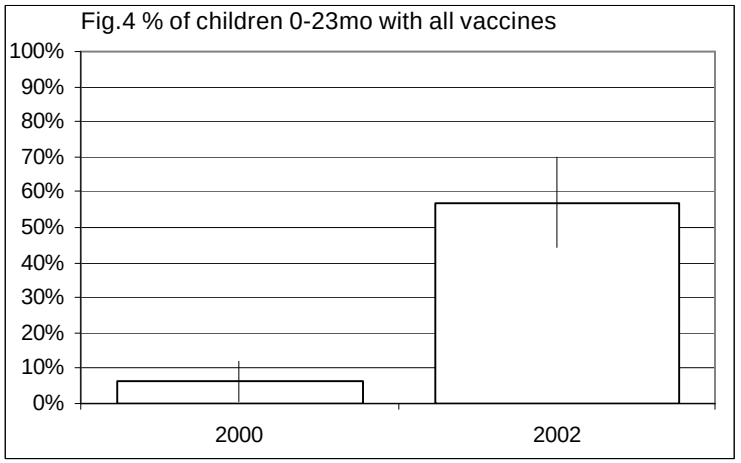


Fig.5 % of children 0-23mo with Vitamin A supplementation according to maternal recall

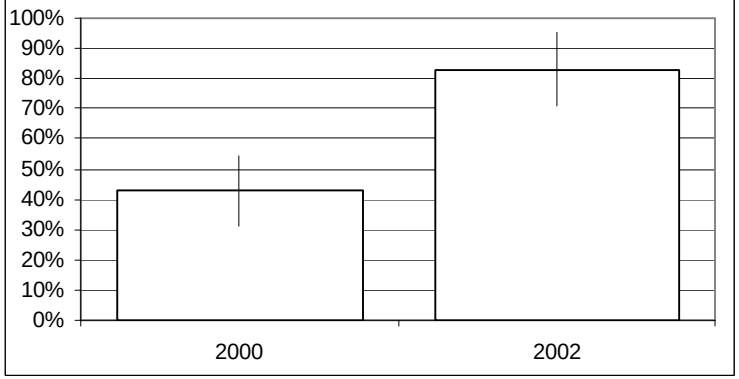


Fig.6 % of children 6-23mo with Vitamin A supplementation according to immunization card

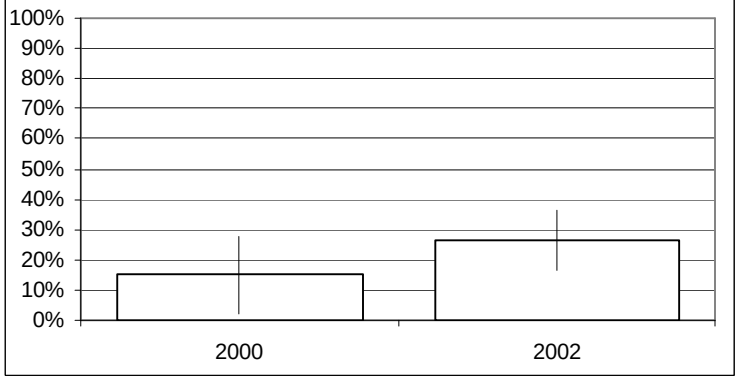


Fig.7 % of mothers with a maternal card

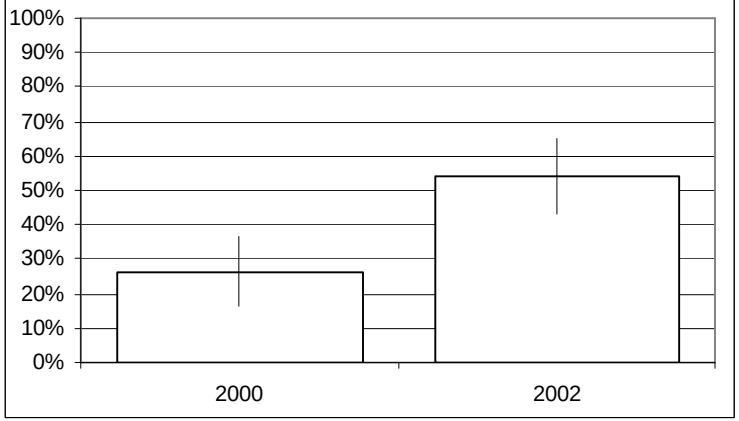
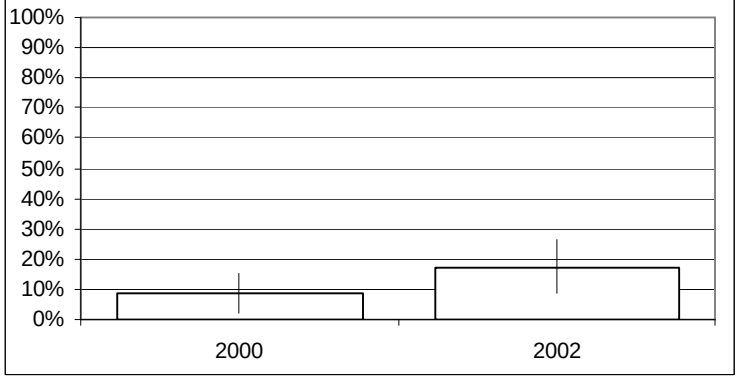


Fig.8 % of mothers with 2 TT doses in her last pregnancy, denominator= all women in the sample



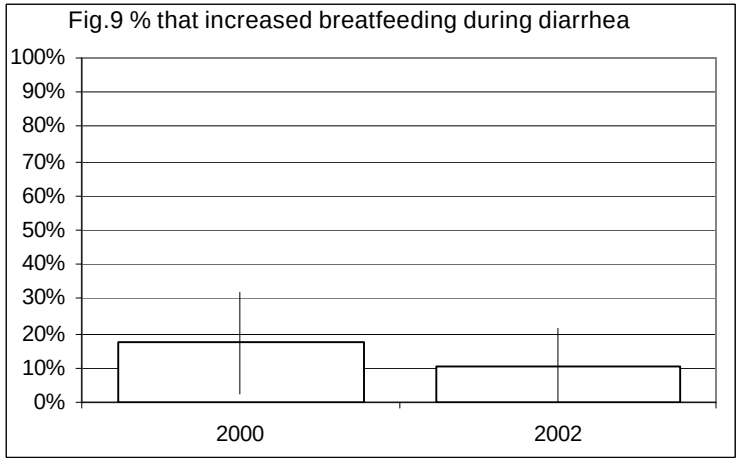


Fig.9 % that increased breatfeeding during diarrhea
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
2000
2002

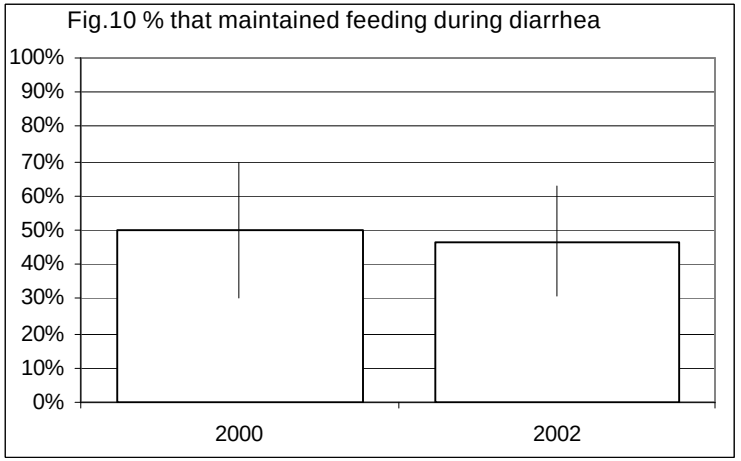


Fig.10 % that maintained feeding during diarrhea
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
2000
2002

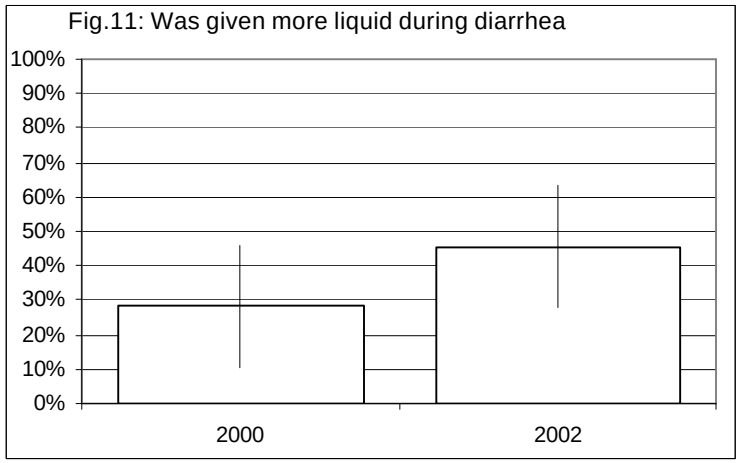


Fig.11: Was given more liquid during diarrhea
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
2000
2002

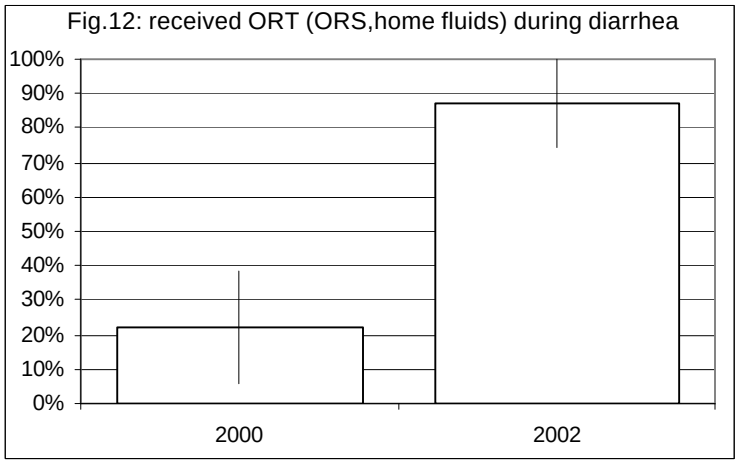


Fig.12: received ORT (ORS,home fluids) during diarrhea
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
2000
2002

Fig. 13: %of mothers naming any danger sign of diarrhea

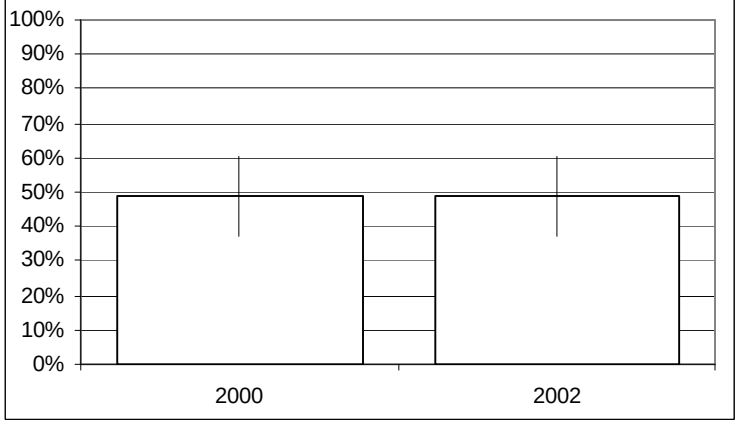


Fig.14: mother names fast breathing as a danger sign

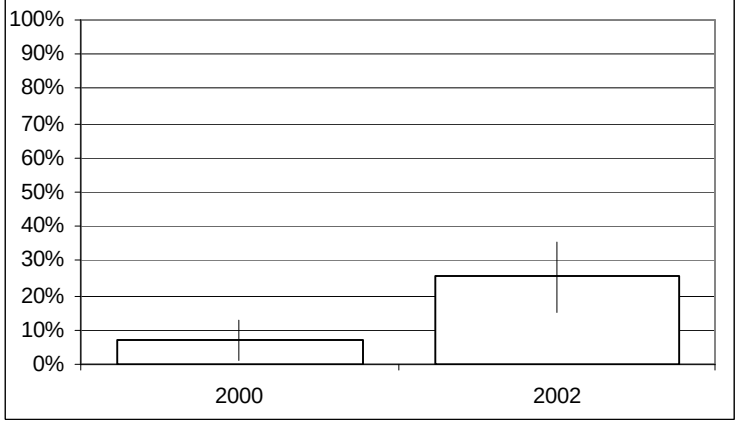


Fig.15: mother sought help from health worker when child had cough and fast breathing

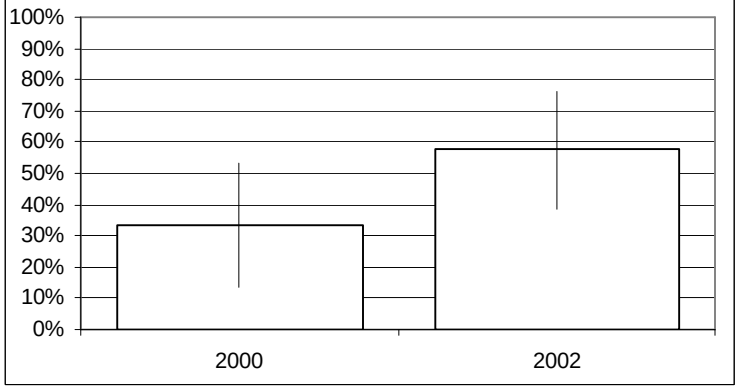
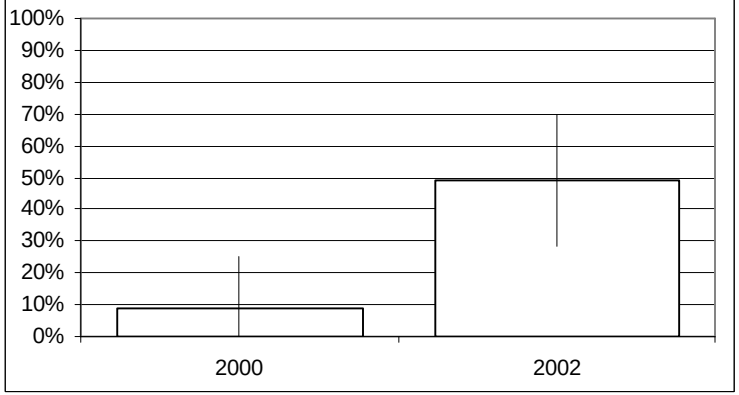


Fig.16: mother sought help the same day the child had cough+ fast breathing



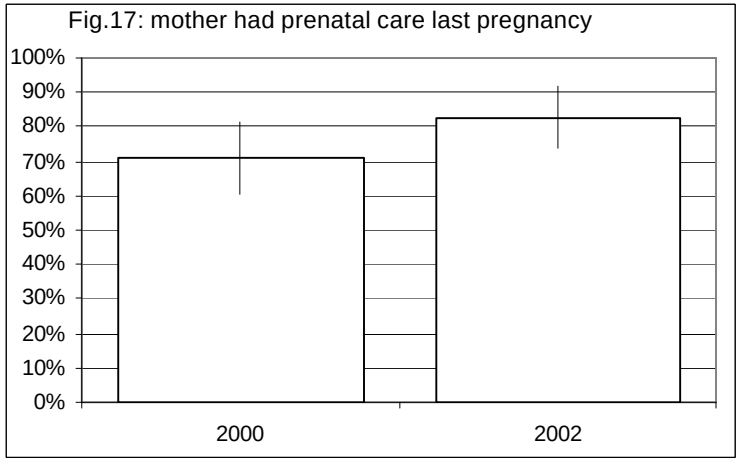


Fig.17: mother had prenatal care last pregnancy
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
2000
2002

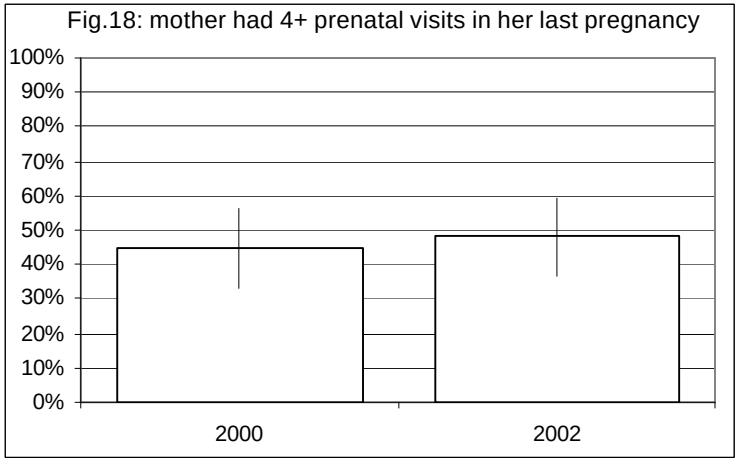


Fig.18: mother had 4+ prenatal visits in her last pregnancy
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
2000
2002

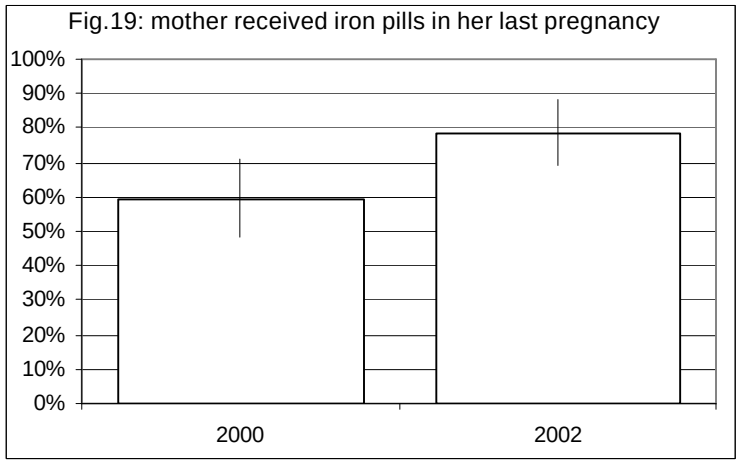


Fig.19: mother received iron pills in her last pregnancy
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
2000
2002

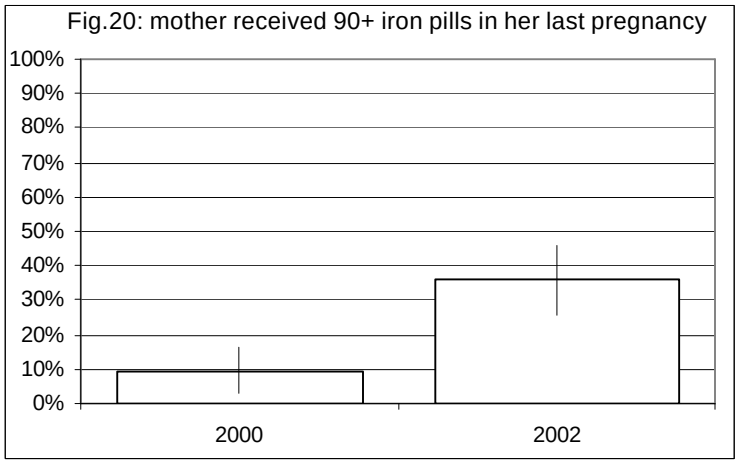


Fig.20: mother received 90+ iron pills in her last pregnancy
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
2000
2002

Fig.21: %of mothers naming any danger sign in pregnancy

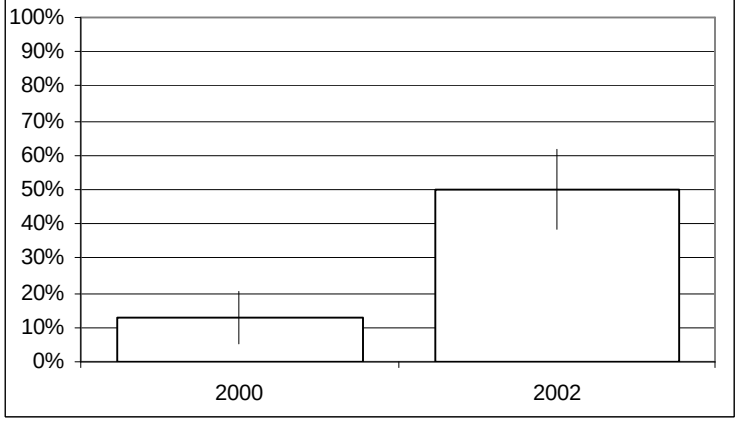


Fig.22: mother said she would seek help from a health facility if she had danger sign of pregnancy

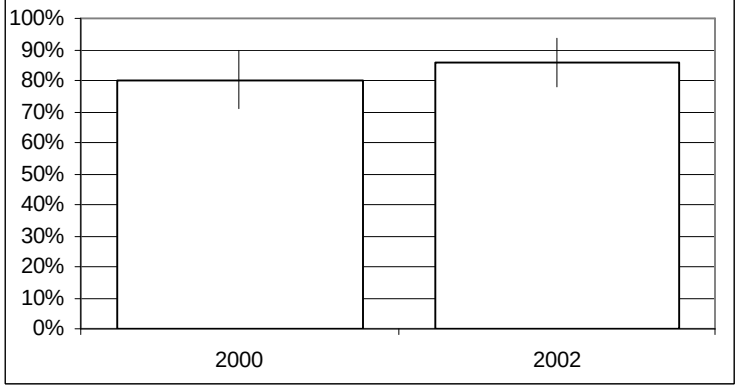


Fig.23: last birth helped by a health worker

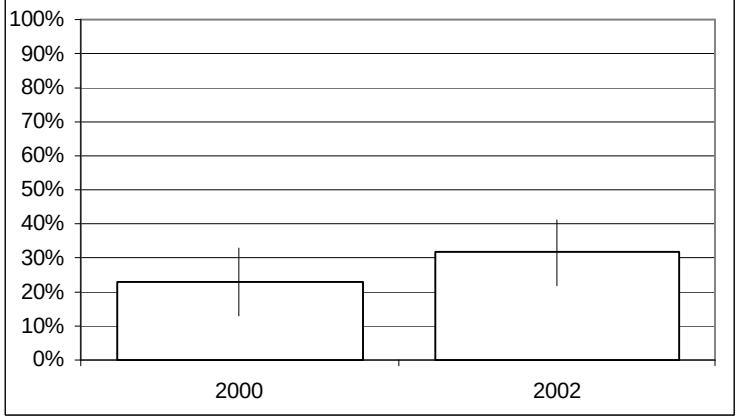


Fig.24: mother had postnatal visits after last birth

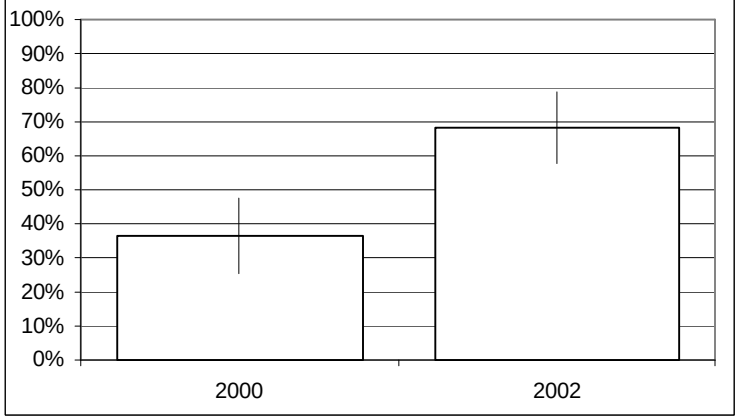


Fig.25: % children that started breastfeeding immediately after birth/ first hour

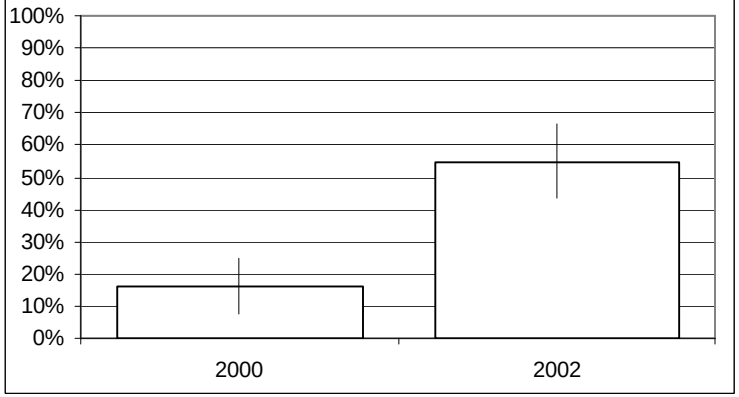


Fig.26: % mothers received FP counseling during postnatal controls. Denominator= all women

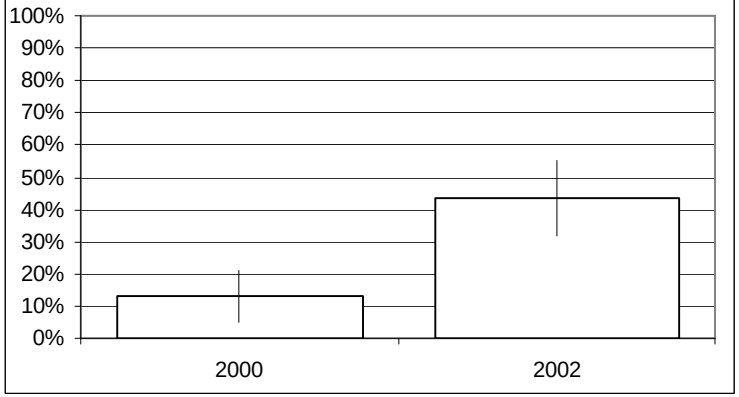


Fig.27: % mothers received vitamin A supplementation during postnatal controls. Denominator= all women

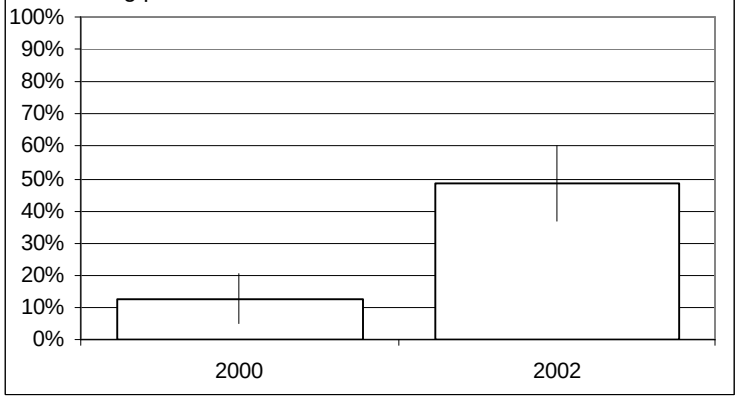
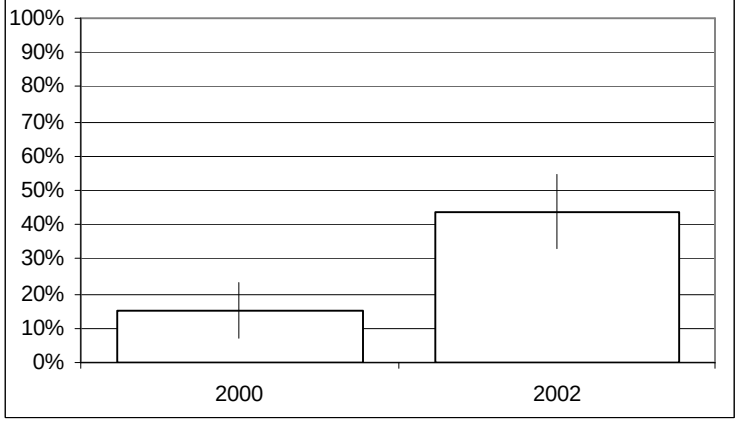


Fig.28: %of mothers naming any danger sign in newborns



CPCSP, MCDI BOLIVIA: CUESTIONARIO DE ENCUESTA DE HOGARES/ *HOUSEHOLD SURVEY QUESTIONNARIE 2002*

DATOS. GENERALES/ *GENERAL CHARACTERISTICS*

Nombre de la madre/ *Mother's name*:..... Edad (anos)/ *Mother's age (years)*:.....
Grado de escolaridad madre/ *Formal instruction level*: [1]ninguno/*none* [2] basico/*basic* [3] intermedio/*middle* [4] medio/*high*
Procedencia (comunidad)/ *Community name*:.....Servicio de salud/ *health facility*.....
Nombre del niño/ *Child name*:..... Fecha nacimiento/*DOB*:...../...../.....
Edad (meses)/ *Age in months*..... Sexo/ *sex* [1] varon/*male* [2] mujer/*female*

INMUNIZACIONES / *IMMUNIZATIONS*

1. En los ultimos seis meses (nombre del nino) recibio vitamina "A" o sea una tabletita como esta (muestre la vitamina "A")? *Sojta quilla pasaskapi (wawayquita) koncuchu vit. "A" niskata o cayjina tabletitata?. / Did [name] receive a vitamin A dose like this during the last 6months?*

Si/ *Yes* -> use codigo 1/ *circle code 1*
No-> use codigo 0 / *circle code 0*
No sabe, no dato/ *Don't know* -> use codigo X/ *circle X*

2. Tiene el niño su carnet de vacunas? /*Tiapunchu carnet de vacuna niska./ Does [name] have an immunization card?*

*Si (*pida que se lo muestre)/ Yes -> use codigo 1 / *circle code 1*
No, perdio el carnet-> use codigo 0 / *circle code 0*
No tiene -> use codigo 0, pase a p.5 / *circle code 0,* goto 5

3. Verifique según el carnet la Fecha en que ha recibido cada dosis*/ Fill in the dates taking the information from the card*

vaccine	mes/ano *month/year*
a. BCG	(/)
b. Polio I:(/) 1ºD (/) 2º D (/) 3ºD	(/)
c. DPT/Penta 1º D (/) 2ºD (/) 3º D	(/)
d. Sarampión/SRP/MMR	(/)
e. Refuerzo/Boosters	(/)

Si la edad en el rango de 12-23 meses y vacunas completas (BCG, Polio 3, DPT3/Penta, Sarampión/SRP) use codigo 1 para var. Vacunas completas. Si no tiene todas esas dosis y esta en el rango 12-23m, use codigo 0./ *If age 12-23m, and child has received BCG, Polio3, DPT3, and Measles, circle 1, otherwise circle 0. For Infants <12m circle X.*

4. Vitamina A última dosis/ record dates of Vit. A supplements 2 por año (mes/ano) 1 dosis(/) 2 dosis (/)

5. Tiene su carnet de control de embarazo o de vacunas./ *Tiapusunquichu onqoj cascayquimanta carnetniyqui? / Do you have a maternal card?*
Si/Yes -> use codigo 1 / *circle code 1*
No -> use codigo 0, pase a la pregunta 7. / *circle code 0*
And go to 7

6. Mire el carnet de salud materna y registre cuantas dosis de TT recibió en el embarazo de [nino]/ *record how many doses of TT the mother received before giving birth to[name]*
numero de dosis/*doses* 0 dosis 1 dosis 2 dosis

si recibio 2 dosis de TT en el embarazo, use codigo 1
if the mother received 2 doses during that pregnancy, code 1
si recibio una o ninguna, circule codigo 0/ *0-1 doses, code 0*

ENFERMEDADES DIARREICAS/ *DIARREA*

7. Ha tenido su niño diarrea en las dos últimas semanas?/ Onconchu quichalerawan cay iscay semana pasajpi*/ has [name] had diarrea in the last 2 weeks?*

Si/ *Yes* use codigo 0 / *circle0*
No use codigo 1, pase a pregunta 12/ *circle 1,go to 12*

8. Cuándo su niño tuvo diarrea, como le dio su pecho?
Quichalerawan casiajtin wawa, imaynata ñuñu qorqampi/ When [name] had diarrea, did your breastfed him/her les than usual, about the same amount or more than usual?

a. Más que de costumbre/ *More* -> cod 1
b. Igual / Kiquintachu/ *Same* -> cod 0
c. Menos que de costumbre/ Pisitachu / *Less*-> cod 0
d. Le quito el pecho / Manañachu konqui/ *Stopped* -> cod 0
e. Ya no recibía pecho antes del episodio Manañachu nuñusarqa / *Already weaned*-> codigo S

9. Cuando el niño tuvo diarrea, cómo le dio sus comiditas (lea las opciones a la madre).
Quichalerawan wawa casiajtin imaynata micucherkanqui When [name] had diarrea, did your fed him/her less than usual, about the same amount or more than usual?

a. Más que de costumbre / *Astawanchu/ More* -> cod 1
b. Igual / *Kiquintachu / Same* -> cod 1
c. Menos que de costumbre /*Pisitachu / Less*-> cod 0
d. Dejo de darle / *Quechurpanquichu / Stopped*-> cod 0
e. Todavía no come/ *Manarajchu micun / has not started*-> Cod S

10. Cuando el niño tuvo diarrea ¿Cómo le dio otros líquidos? Lea las opciones a la madre:
Quichalerawan wawa casiajtin imaynata konqui ujyana yaquitusta

When [name] had diarrea, did you offer him/her liquids less than usual, about the same amount or more than usual?

a. Más que de costumbre / Astawanchu ->Cod 1
b. Igual / Kiquintachu -> Cod 0
c. Menos que de costumbre /Pisitachu -> Cod 0
d. Le suspendio / Quichurpanquichu -> Cod 0
e. Solo pecho / Ñuñullalachu -> Cod 1

11. Cuando el niño tuvo diarrea que le dio para que mejore *Quechalerawan casiajtin wawa imasta corkanqui o tomachercanqui* [anote una o mas]/ *What was [name] given to treat the diarrea?*

a. Nada /*None* ( ) -> Cod 0
b. Sobre de rehidratación oral/ *ORS* ( )-> Cod 1
c. Solución de agua y sal (suero casero)/ *home made* fluid combining sugar and salt ( )-> Cod 0
d. Agua de arroz */ Rice water* ( ) -> 1
e. Líquidos caseros o mates/ *Homemade fluids* ( ) -> 1
f. Medicinas / *Pills or syrup (*especifique) ( ) -> 0
g. Otros, especifique, ej medicina tradicional/ *Other* .....
h. Sopas/ *Soups and broths*

12. Que señas de peligro le hacen dar cuenta que su wawa se esta empeorando o agravando? [marque una o mas] *Imaynata yachawaj wawa quichalerawan casiajtin empeoracusqanta o amola cuscanta? / What are the signs of dirrhea that would indicate your child needs treatment?*

a. Nada /*None, don't know* ( )
b. Sed / *Thirsty* ( )
c. piel seca/ signo del pliegue/ *Skin* ( )
d. ojos hundidos / *sunken eyes* ( )
e. Diarrea con sangre/ *dysentery* ( )
f. Diarrea prolongada (>14 días)/ *chronic diarrhea* ( )
g. Otros,especifique):.....

Marque codigo 1 si la madre menciona al menos tres senales de peligro (de b. Hasta f.), marque codigo 0 si reconoce menos de 3.
Circle 1 if the mother mentions at least 3 signals (b-f)

13. Desde que edad le dio comiditas a (nombre del nino) I*ma edadmanta miqunitasnin qorqanqi /when did [name] started food or liquids other than breastmilk?*

a. Menos de 6 meses / *before 6 months* - cod 0
b. 6 meses / *around 6months* - cod 1
c. 7 o mas meses / *7 or more months* -cod 0

14. Que comiditas le dio ayer a(nombre del nino) *Ima miqunitasta qorqanqi k'aina/ what types of food [name] ate yesterday?*

a. La parte espesa de la olla/ thick foods -> cod 1
b. Frutas y/o chaques /fruits& cod 1
c. L a parte liquida de la olla/ *watery foods* cod 0
d. Mates u otros liquidos /*teas,other fluids* cod 0

15
16 15. Cuantas veces le da de comer en el dia a (nombre del nino) *maik'a quti micunistasta qomqi uj diapi/how many times [name] was fed yesterday, not counting breastmilk?*

	Age group(mo)	*Number of times*	*Code*
a.	(6-8 meses)	<3 veces	-> cod 0
b.	(6-8 meses)	3- 5 veces	-> cod 1
c.	(9+ meses)	< 5 veces	-> cod 0
d.	(9+ meses)	5+ veces -	> cod 1

JLA: If the child has <6m circle S

16. Cuantas cucharas de comida le da en cada plato *maik'a cucharasta qomqi sapa platupi/ how many spoons of food do you put on [name]'s plate in each feeding time?*

	Age group(mo)	*Number of spoons*	*Code*
a.	6-8 meses	3 a 10 cucharas	Cod. 1
b.	9-11meses	10 a 14 cucharas.	Cod.1
c.	1 ano	14 a 16 cucharas.	Cod 1

If less, circle code 0

ENF. RESPIRATORIAS AGUDAS/ ARI AND PNEUMONIA

17. Ha tenido su niño tos en las dos últimas semanas? *Wawainiyqi Onconchu cay iscay semana pasajpi/ has [name] had an illness with cought in the last 2 weeks?*
a. Si ( )
b. No ( ) -> pase a pregunta 23

18. Preguntar como es la respiración rapida/ *Do you know how a child having trouble breathing breaths?*
a. como cansadito/ *as if he/she was tired* cod 1
b. igual / *same* cod 0
c. no sabe / *don't know* Cod 0

19. Esa vez que estuvo con tos (nombre del nino) estuvo con respiración rapida? *Chay quti chojosiajtin samaynin usqai qarka?/ When [name] had cough, did she/he have trouble breathing or breath faster than usual?*

a. Si/ *Yes* ( )
b. No ( ) -> pase a 23/ *Go to 23*

20. Cuando el niño estuvo enfermo y respirando rápido como cansadito ¿pidió consejo o ayuda? *Wawa onkosta cajtin uskay samajniywan, saikusta jina, masqarqanchichu pilllapis yanapasunanpaj?/ Did you seek advice/treatment for the cough/fast breathing?*

a. Si/*Yes* ( ) -> cod 1/ *Circle code 1*
b. No( ) -> cod 0, pase a 22/ *circle code 0, go to 23*

21. A quien pidió consejo o ayuda cuando el niño estuvo respirando rápido como cansadito? Maymantaj rirqanqui o pitataj mask'arqanqui wawa usk'ai samayniywan casiajtin?/ where did you go for advice or treatment?

a. Hospital ( )
b. Centro/ puesto de salud */ Health post* ( )
c. Médico o clinica particular ( )
d. Farmacia / *Pharmacy* ( )
e. Promotor de salud */ health promoter* ( )
f. Curandero/ *Traditional healer* ( )
g. Partera */ Traditional birth attendant* ( )
h. Parientes y amigos*/ friends, relatives* ( )
i. Otros (específique/ *Other* .....

Marque codigo 1 si fue a establecimiento de salud publico (a,b) o privado (c) . Marque codigo 0 para todos los restantes.
Circle code 1 if the mother went to public/private facilities

22. Despues de cuanto tiempo de que se dio cuenta que [nombre del niño] estuvo respirando rápido (como cansadito), ud. pidió consejo o ayuda? *Chay saik'usqajina, samasiajtin wawa maik'a unayninmantaj yanapanata mask'arqanqui./ How long did it take to you to seek advice or help?*

a. El mismo día/ *same day* -> cod 1
b. Al día siguiente / *next day* -> cod 0
c. A los 2 días o mas/ *2 or more days*-> cod 0

23. Que señasde peligro le harán dar cuenta que un niño con tos tiene neumonía ?
Imaynata yachawaj sichus wawa neumoniawan o chay postemado nincu oncorparinman. What are the signs of disease with cough that would indicate your child needs treatment?

a. Respiración, rápida y agitado/ fast, difficult breathing ( )
b. Retracción subcostal/ *chest indrawing* ( )
c. No sabe / *Don't know* ( )
d. Otro(especifique)/ *Other* .....

Si menciona a *y* b circule codigo 1, si menciona uno o ninguno de esos signos circule codigo 0./ *If mentions both a and b circle code 1, otherwise circle code 0.*

SALUD MATERNA/MATERNAL AND NEONATAL HEALTH

24. En los 2 ultimos anos Ud. Se embarazo?
Kai isqai huata pasajta, kan embarazada k'arqanqi ?/ Have oyu been pregnant in the last 2 years?
Si
No

25. ¿Cuándo estuvo embarazada de [nombre del nino] se hizo controlar con alguien? *Controlachicorqanquichu pillawampis oncoj casiatiyqui wawamanta* / *Did you see anyone for prenatal care when you were pregnant with [name]?*

a. Sí/Yes ( )
b. No ( ) pase a p. 28/ *go to 28*

26. ¿Quién le hizo los controles cuando estaba embarazada del niño? *Piwantaj controlachiqarqanqui wawa oncoj casiajtiyqui*?/ *Whom did you see for prenatal care?*

Orientación: Coloque estos numeros según el numero de control que hayan realizado los proveedores de salud a,b y c
(1) Primer control
(2) Segundo control
(3) Tercer control
(4) Cuarto control

a. Médico / *Physician* ( )
b. Enfermera / *Registered Nurse* ( )
c. Auxiliar de enfermería/ *Auxiliary nurse*( )
d. Partero/ *Traditional birth attendant* ( )
e. Curandero/ *Traditional healer* ( )
f. Otros (especifique)/ *other, specify*.....

Solo considere controles hechos por personal de salud en la siguiente pregunta/ *For the next question, only controls made by institutional health providers (a-c) are considered:*

27. ¿Cuántas veces se hizo controlar cuando estaba embarazada de [nombre del niño]?
Mayka cutista controlachicurcanqui oncoj casiajtiyqui wawamanta?/ How many times did you see anyone during the pregnancy?

a. Una vez / *one* ( ) -> cod 0
b. Dos veces/ *two* ( ) -> cod 0
c. Tres veces / *three* ( ) -> cod 0
d. Cuatro o más veces/ *4 or more* ( ) -> cod i1

28. Cuando estuvo embarazada de [nombre del niño] recibió algunas tabletas de hierro para la anemia, parecidas a esta? (muestre las tabletas de sulfato ferroso)
Unkuy casiajtiyqii (w) kosuncuchu tabletitas de hierro anemiapaq niskata o caijina tabletitasta?/ When you were pregnant with [name], did you receive any ron tablets like this?

a. Sí / *yes* ( )
b. No ( ) -> pase a 30/ *go to 30*

29. ¿Cuántas semanas o meses tomo esta tabletita para la anemia ?
Maiqa tiemputa tomarqanqui chay tabletitasta anemiapaj?/ For how long did you take those pills?

a. No recuerda/ *Don't know* ( )
b. ( ) Nº de tabletas./ number of pills

Si responde en meses, multiplique el numero de meses x 30
Si tomo 90 o mas tabletas marque el codigo 1, si tomo menos marque el codigo 0./ *If mother took 90 iron pills or more circle 1, otherwise circle 0.*

30. ¿Qué señales de peligro o problemas durante el embarazo le indicarían que es necesario buscar ayuda?
Onqoj casiajtiyqi imainamanta yachawaj peligrupichus qasanqi yanapanata mascanayquipaj? What are the signs of danger during pregnancy indicating the need to seek help?

a. Hemorragia vaginal/ *vaginal bleeding* ( )
b. Hinchazón del cuerpo , manos, cara, pies/ *Swelling* ( )
c. Convulsiones/ ataques / *seizures* ( )

d. No sabe/ *Don't know* ( )
e. Otros (especifique)/ *other, specify*.....
Si menciona las senas a, b, y c marque codigo 1/ *must name a,b and c to circle code 1.* Si menciona menos marque codigo 0./ *Otherwise circle code 0.*

31. ¿Qué señales de peligro o problemas en la mujer después del parto, le indicarían que es necesario buscar ayuda?
Imaynata yachanquiman señales de peligru niskamanta onkocuytiyquina?

a. Fiebre */ fever* ( )
b. Mucho sangrado vaginal/*vaginal bleeding* ( )
c. Sangrado mal oliente/ *smelly discharge* ( )
d. No sabe/ *Don't know* ( )
e. Otros (especifique)/ *Other, specify*.....
Si menciona las senas a, b, y c marque codigo 1. *Must name a,b and c to circle code 1.*
Si menciona menos marque codigo 0. *Otherwise circle code 0.*

32. ¿Dónde iría o que haría usted, si se presentarán esas señas de peligro o problemas después del parto?
Maymantaj rihuaj o imata ruhahuaj cay señas de peligro cajtin onkoqujtiyquiña/ where would you go if you had those signs?

a. Hospital ( )
b. Posta de salud/ *health post* ( )
c. Clínica particular/ *private hospital* ( )
d. Promotor/ *health promoter* ( )
e. Partero/ *Traditional birth attendant* ( )
f. Curandero/ *traditional healer* ( )
g. A ningún lugar/ *would not seek help* ( )
h. Otro(especifique)/*other, specify*.....

Si dice que iria a un establecimiento de salud publico o privado (a-c), marque cod 1./ *Circle code 1 if mother mentions any health facility, public or private*. Para los restantes, marque codigo 0. *Otherwise, circle code 0.*

33. Que señales de peligro o problemas en su wawita recién nacida, le indicarían que es necesario buscar ayuda?
Wawa uña cajtin imaynata yachanquiman, sichus casian onqosqa yanapana mask'añayquipaj./ What are the signs to watch for that may indicate that a newborn baby is ill?

a. Mama muy poco / *poor feeding* ( )
b. No puede mamar/ *unable to breastfed* ( )
c. Respira muy rápido/ *fast breathing* ( )
d. Esta muy quieto/ *not active* ( )
e. Su ombligo esta rojo/ *redness around the cord* ( )
f. Fiebre/ *fever* ( )
g. Secreción (pus en el ojo) */ red, discharging eye* ( )
h. Otros (especifique)? *Other, specify*.....

Si mencione tres (a-g) marque codigo 1, si menciona menos marque codigo 0./ *If mentions any 3 from a to g, circle code 1, otherwise circle code 0.*

34. Quien le atendio en el parto de (nombre del nino)
Pi yanapasunqi onqokuunayqipaj… / Who assisted you with [name]'s delivery?

a. Medico/ *Physician*
b. Enfermera/ *Registered Nurse*
c. Auxiliar/ *Auxiliary Nurse*
d. Partera tradicional capacitada/ *TBA*
e. Curandero/ *Traditional healer*
f. Familiar/ *relative*
g. Otro (describa)/ *other, specify*.....
h. Nadie/ *Nobody*

Si le ayudo personal de salud (a-d) marque codigo 1, para los restantes marque codigo 0. *Note: to be consistent with baseline, if mother respond a to d, circle code 1, otherwise circle o.*

35. Después de su parto le controlaron para ver que todo estaba bien?/ *After [name]was born, did anyone check on your health?*
a. Si/ *Yes* ( ) -> Cod.1
b. No ( ) -> Cod 0

36. En el control que le hicieron después del parto, le dieron Vitamina A o una tabletita igual a esta? (muéstrele una)
Partu pasasqanmanta controlman rejtiyqui, ¿Kosunchuchu cayjina tabletitata?/ *In the first two months after delivery, did you receive a Vitamin A dose like this?*

a. Sí/ yes ( ) -> Cod 1
b. No ( ) -> Cod 0

37. Después del parto del niño ¿Cuándo le dio de mamar por primera vez? Onkokuscayquitawan, imatiempu pasaskamanta ñuñocherkanki?/ How long after birth did you put [name] to the breast?

a. Antes de la primera hora/ *Within 1st hour.*( )
b. Durante las primeras 8 horas después del parto/ *within first 8 hours* ( )
c. Mas de 8 horas después del parto/ *After 8 hours* ( )
d. No se acuerda/ *Don't know* ( )
Si empezo en la primera hora marque codigo 1, si empezo después de la primera hora marque codigo 0*./ If started within first hour after delivery, circle 1, otherwise circle 0.*

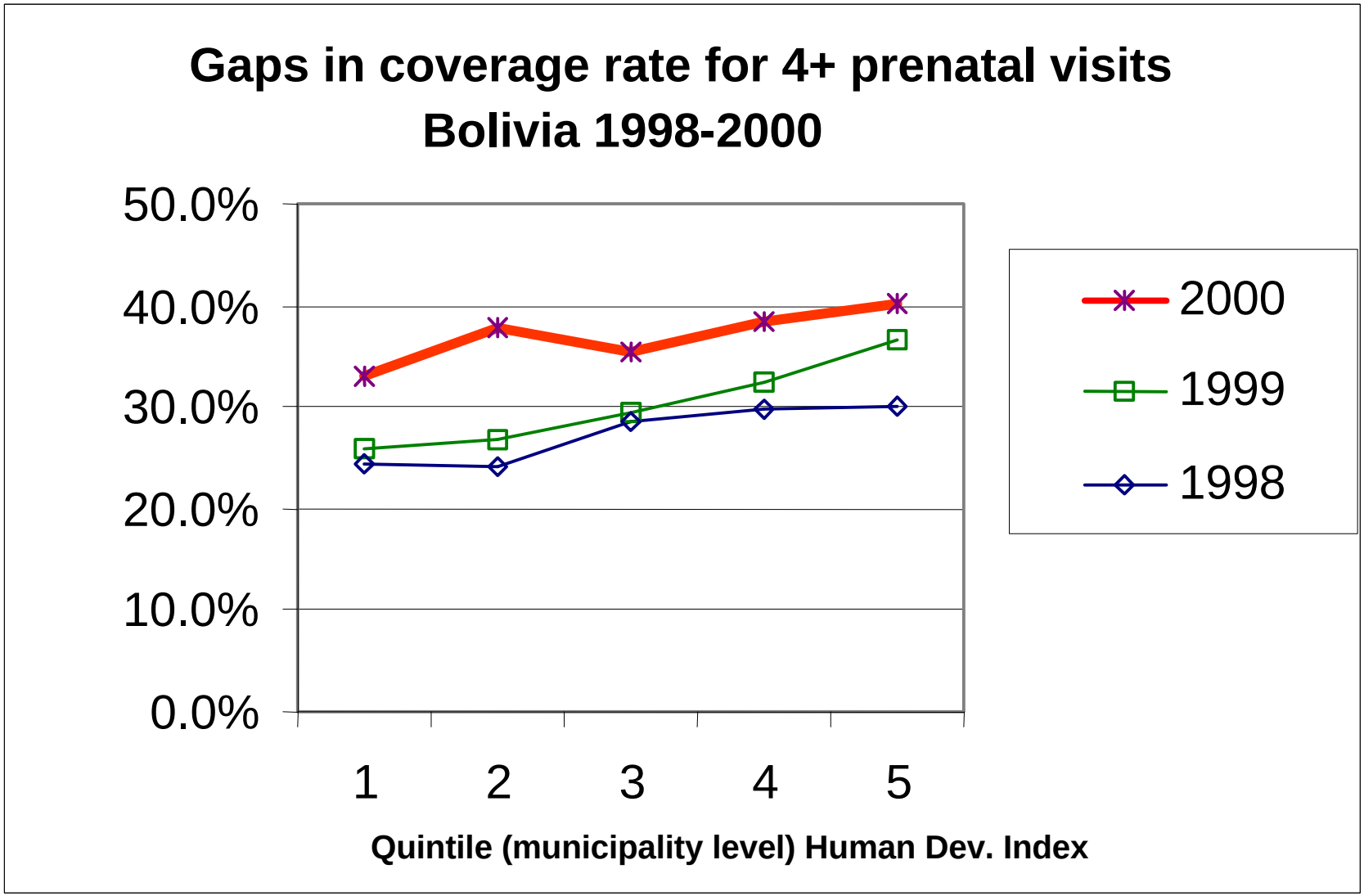
38 Después del parto de [nombre del niño] le dieron consejos sobre la planificación familiar?

Partu pasasqanmanta controlman reytinqui ¿Parlasucunchu mana wawa cananpaj cuidacunamanta?/ During your postpartum check, were you counseled on child spacing?

a. Si/ Yes ( ) -> cod 1
b. No ( ) -> cod 0

END OF THE INTERVIEW

Attachment D: Equity in the use of basic Health Insurance. Data source : SNIS



Attachment E:

Current Status of Cost and Financing Analysis of Child Survival Services Supplied under the Seguro Basico de Salud in Cotagaita and Puna Districts

In accordance with the Study Design, Dr. Schwabe visited Bolivia in December 2000 to conduct a training and orientation program at Nur University for the Study. The session was a two-way process that included (1) Dr. Schwabe presenting the study methodology and introducing ***MedCost©***, MCDI's step-down costing software to be used for data processing and analysis, and (2) the participants sharing information on the Seguro Basico system. Dr. Schwabe and Mr. Selph also met with the senior management of Nur University to discuss how the university could be involved in the study process as a capacity-building endeavor. The agreement was ultimately that Nur would identify a suitable post-graduate candidate to work with the project collecting the data and entering it into ***MedCost©***. It was agreed that the candidate would work under the supervision of Dr. Schwabe.

The process of identifying a suitable candidate who was willing to allocate the time necessary to carry out the data collection and processing, and who was willing to live and work in the Cotagaita area, took longer than anticipated and delayed the initiation of the survey process. Eventually, however, Nur identified an economist, Mr. Navil Agramont, who began working and preparing for the survey in December 2001. Mr. Agramont used the the ***MedCost©*** questionnaires adapted for Bolivia and the assessment of the Seguro Basico based on the survey pre-test conducted by Dr. Schwabe and Mr. Selph during Dr. Schwabe's visit to Bolivia in December 2000.

Based on Dr. Schwabe's visit it was also decided drop Puna District from the study and focus only on Cotogaita given the logistical difficulties associated with reaching and surveying facilities in Puna.

The survey itself began in January 2002 and though there was fairly good initial progress, it was delayed at various times as result of pre-programmed health sector activities (e.g. the national immunization campaign and others) that made it impossible to have access to the health center staff, and as a result of the difficulties in traveling and accessing certain facilities during the rains.

An initial batch of surveys was reviewed by Dr. Schwabe in order to ensure that they were completed correctly, and some corrections had to be made based on this review, and these initial sites re-visited in order to rectify the problems identified.

Once the surveys were completed, Mr. Agramont, began the data entry using the ***MedCost©*** software. This process also took longer than originally projected given the irregularities of the electricity supply in Cotogaita. In addition, there was the need for considerable interaction and review of the initial data file by Dr. Schwabe, a process that required splitting the large ***MedCost©*** data file and emailing sections to the States where they were reconstituted for review. Considerable assistance was provided in this regard by Ms. Evans from the MCDI home office since a number of the data entry concepts within ***MedCost©*** (in particular the rules and procedures for allocating inputs and their costs to the appropriate cost centers within the software) proved to be somewhat

confusing for Mr. Agramont initially. Once these nuances of the step-down costing methodology and their application within ***MedCost©*** were understood, the data entry process proceeded relatively smoothly.

The data for all the health centers have now been entered and sent to Dr. Schwabe who is in the process of cleaning and analyzing them. A number of additional data are required for the two hospitals, and this is being obtained by Mr. Agramont at this time.

It is anticipated that the analysis and write-up of the data will be completed by mid-November at the latest and that a Spanish version of the principal findings and recommendations will be produced and disseminated. It is anticipated that the findings will be disseminated both at the local level and at the national level where there is considerable interest in whether the reimbursement rates under Seguro Basico are adequate for lower-level and more remote facilities. In addition, there is also considerable interest on the part of the national authorities in the prospect of using ***MedCost©*** to carry out similar analyses elsewhere in Bolivia.

In addition to disseminating the findings, MCDI also anticipates sharing the underlying ***MedCost©*** data files with the municipal authorities since they provide extensive health management information. MCDI is currently evaluating the best approach for transferring these data to the municipalities and for orienting/training their staff in accessing and evaluating the data contained in ***MedCost©***. In addition, it is anticipated that MCDI will be able to work with the municipalities and representatives from Seguro Basico to develop a strategy for addressing the findings and recommendations derived from the Study and in the process to ensure that health centers and district hospitals are adequately funded to provide quality essential health services.